



US ARMY CORPS  
OF  
ENGINEERS  
Rock Island District

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM  
for  
FORMERLY USED DEFENSE SITES  
ORDNANCE AND EXPLOSIVES WASTE



Archives Search Report

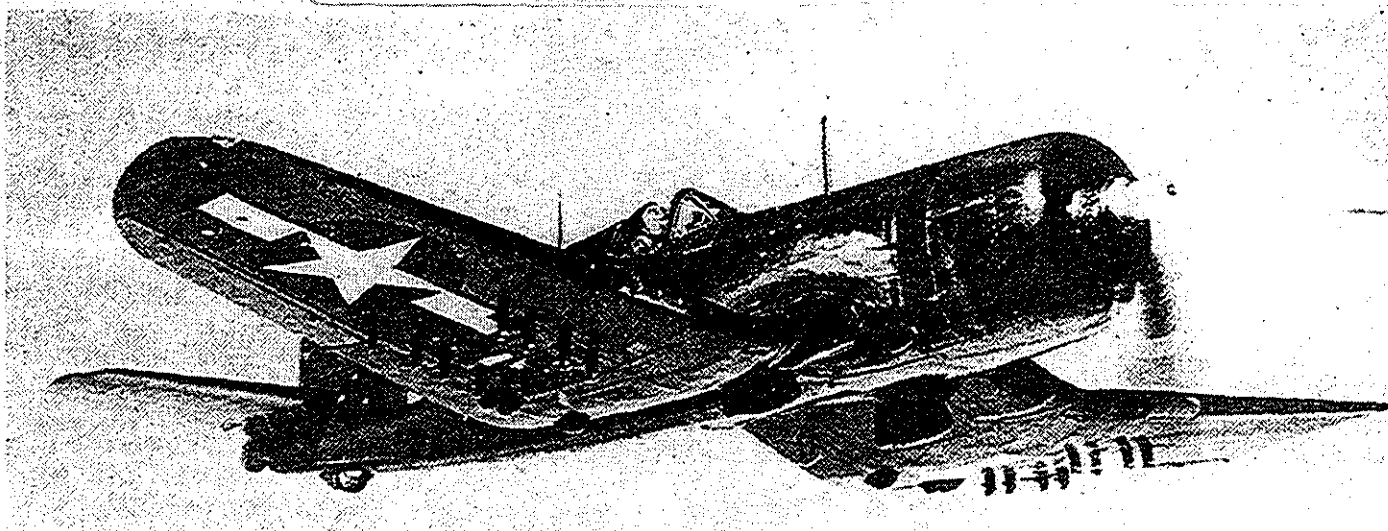
FINDINGS

GREAT NECK TARGET RANGE

MASHPEE, MASSACHUSETTS  
Project Number D01MA045001

October 1994

**CHANCE VOUGHT**



The Chance Vought F4U-4 Corsair Single-seat Naval Fighter (Pratt & Whitney R-2800-18 engine).

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PROJECT NUMBER D01MA045001

September 1994

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ORDNANCE AND EXPLOSIVE WASTE  
ARCHIVES SEARCH REPORT  
FOR  
FORMER GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
OEW PROJECT NUMBER D01MA045001

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ORDNANCE AND EXPLOSIVE WASTE  
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MASHPEE, MASSACHUSETTS  
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1. INTRODUCTION

a. **Subject and Purpose**

(1) This report presents the findings of a historical records search and site inspection for ordnance and explosive waste (OEW) presence located at the former Great Neck Target Range (GNTR) on South Cape Beach State Park (SCBSP) near Mashpee, Massachusetts (see plate 1 for general site location map). The investigation was performed under the authority of the Defense Environmental Restoration Program (DERP) for Formerly Used Defense Sites (FUDS).

(2) The purpose of this investigation was to characterize the site for potential OEW contamination to include chemical warfare material (CWM) utilizing historical records, interviews and on-site visual inspection results.

b. **Scope**

(1) The investigation focused on the 229 acres that were used as Great Neck Target Range (GNTR).

(2) This report presents the site history, site description, real estate ownership information, and confirmed ordnance presence (prior to and after site closure), based on available records, interviews, and the site inspection. It further provides a complete evaluation of all information to

assess actual and potential current ordnance contamination.

(3) For the purpose of this report Ordnance and Explosives Waste (OEW) is considered unwanted and abandoned ammunition or components thereof, which contain energetic, toxic, or radiological materials, and was manufactured, purchased, stored, used, and/or disposed of by the War Department/Department of Defense.

## 2. PREVIOUS INVESTIGATIONS

### a. 1992 Preliminary Assessment

(1) A Preliminary Assessment (PA) of GNTR (which was also known as the Practice Bombing Area, Mashpee, Massachusetts) was conducted under the DERP-FUDS by the U.S. Army Corps of Engineers, New England Division (reference B-1). The PA began 31 July 92 and ended 28 Sep 92. It was determined on 28 Sep. 92 during the Finding and Determination of Eligibility (FDE) that the 229 acre site had been used by the U.S. Navy (document E-1).

(2) The FDE concluded that there were eligible categories under the DERP-FUDS program. An OEW project was recommended due to Navy usage as a practice bombing range (PBR). That number is D01MA045001; it is the principle subject of this report (document E-1 and TABLE 2-1).

**TABLE 2-1**  
**DERP-FUDS PRELIMINARY ASSESSMENT PROJECTS**

Project Number	DERP Category	Present Phase	Comments	Location
D01MA45001	OEW	SI	None	Entire 229 Acres
	CON/HTRW	-	None	
	BD/DR	-	None	

## **b. Other Investigations**

No other investigations were found that are pertinent to this site investigation.

## **3. SITE DESCRIPTION**

### **a. Existing Land Usage**

The site is located approximately two hours drive from Boston, MA on Cape Cod peninsula. The Commonwealth of Massachusetts is the current owner of the site; it is used for recreational and environmental purposes (see plate 1). Usage and ownership are the same for the entire project area.

### **b. Climatic Data**

(1) Material in paragraphs 3.b.(2) through (5) was extracted from Soil Survey of Barnstable County, Massachusetts, by Peter C. Fletcher, Soil Conservation Service, March 1993 (reference B-2).

(2) GNTR, which is now SCBSP, was located in Barnstable County Massachusetts. Weather there is described as follows. Both the start and the end of the warm period are somewhat delayed because of the moderating influence of the Atlantic Ocean. Still, winters are cold and summers are warm. In winter, the ground is frequently but not continuously covered with snow, and the average temperature is 31 degrees F, with an average daily minimum temperature of 23 degrees F. In summer, the average temperature is 68 degrees and the average daily maximum temperature is 77 degrees.

(3) The lowest temperature on record for the county occurred at nearby Hyannis, about 22 miles away, on January 31, 1961; it is -8 degrees. The highest recorded temperature is 97 degrees and that was recorded on July 5, 1955. The sun shines 60 percent of the time possible in summer and 50 percent of the time in winter. Prevailing wind is from the Northwest. It is highest in winter when it averages 22 miles per hour.

(4) Of the total annual precipitation, about 21 inches, or nearly half, usually falls in April through September.

Thunderstorms occur on about 20 days each year. Seasonal snowfall is about 24 inches, and, on the average, 4 days have atleast 1 inch of snowfall.

(5) The average relative humidity in mid afternoon is about 70 percent. Humidity is higher at night, and the average at dawn is about 80 percent (reference B-2).

#### **c. Topography**

The area is characterized by flat land with dunes of two to three feet at most, and the entire area is only a few feet above sea level. Bushes, forbs, and grasses cover much of the area above the beaches.

#### **d. Geology and Soils**

(1) Material in paragraphs 3.b.(2) through (15) was extracted from Soil Survey of Barnstable County, Massachusetts, by Peter C. Fletcher, Soil Conservation Service, March 1993 (reference B-2).

(2) The landscape where GNTR was located owes its origin to the last continental glacier and to the rise in sea level that followed glaciation. The moving ice scraped, ground, and picked up the bedrock of southern New England and deposited it as the glacial and postglacial sediments of Cape Cod. Later, as the sea drowned the glacial cape, the drift along the shoreline was eroded and redeposited as beaches and spits. Windblown sand was deposited as dunes.

(3) The exact age of the glacial deposits is not known. The deposits do not date back to more than 18,000 to 20,000 years ago, when the continental glacier reached its maximum advance and extended as far southward as Nantucket and Martha's Vineyard. They are older than the glacial deposits near Boston, which, according to radiocarbon dating, are about 14,000 years old.

(4) The glacier in southeastern Massachusetts was formed into lobes by basins in the underlying bedrock. The lobes occupied the present sites of Buzzard's Bay, Cape Cod Bay, and the Great South Channel to the east of Cape Cod.

(5) Dune deposits probably started to form about the same time as the saltwater marsh and beach deposits. Dune deposits are made up of sand winnowed from the beaches. Winds carried the sand inland and to the top of sea cliffs, where it was redeposited as extensive dune fields atop spits and dunes.

(6) The geology of Cape Cod remains dynamic as the postglacial landforms continue to evolve. Wave erosion maintains the sea cliffs cut in the drift. Spits, beaches, and dunes expand and are reshaped by major storms. In response to rises in sea level, plants grow in the marshes and the size of the marshes increases. Eventually, the glacial cape may be worn away and replaced by barrier islands and shoals (reference B-2).

#### **e. Hydrology**

(1) The Mashpee area and SCBSP, which includes all of what was GNTR, are a part of Waquoit Bay and its watershed. This watershed and its estuaries encompasses an area of approximately 20 miles. It extends from the mouth of Waquoit Bay to above Snake Pond in Sandwich, MA, east to Jehu Pond in Mashpee, and west to Ashumet Pond in Falmouth, MA and Mashpee.

(2) Groundwater flows beneath the entire watershed and eventually empties into Waquoit Bay. Depth of water table varies with the tide.

(3) There is no flowing surface water within the area that comprises the former GNTR. However, there is standing water in Sage Lot Pond and swampy land within this tract (reference B-3 and document L-1).

#### **f. Natural Resources**

(1) The former GNTR is habitat during the nesting season for Piping Plovers and the Least, the Roseate, and the Common tern. Any nesting sites become restricted access during that time (references B-1, B-4, and documents E-3, E-6, E-7 and I-1). Nests might be found throughout the area. Table 3-1 contains a complete listing.

(2) In addition, the herb Broom Crowberry, listed with the state of Massachusetts as a "Special Concern," is present in SCBSP (reference B-4, B-5, and Table 3-1).

**TABLE 3-1  
NATURAL RESOURCES**

Resource Classification	Type	Comments
Wildlife	Piping Plover	Endangered (Federal) Threatened (State)
	Least Tern	Special Concern (State)
	Roseate Tern	Endangered (Federal) (State)
	Common Tern	Candidate Listing (Federal) Special Concern (State)
Vegetation	Broom Crowberry	Special Concern (State)

**g. Historical/Cultural Resources**

No cultural or historical resources associated with this site were found during the archives search or the site inspection. Document I-2 is a conversation of record with Mrs. Rosemary Burns of the Mashpee, MA Archives Museum. Mrs. Burns stated that to her knowledge and all associated with the museum no cultural and historical resources exist at GNTR. She also provided a letter from the Massachusetts Historical Commission, which is the state's state historic preservation office (SHPO), with some archaeological sites on it and noted that none of these sites are on SCBSP (documents I-2 and F-1).

**4. HISTORICAL ORDNANCE PRESENCE**

**a. Chronological Site Summary**

(1) The U.S. Navy acquired 115.1 acres of land in Mashpee, MA on the Great Neck peninsula on 25 January 1945 (document H-1). This land was condemned "for a practice bombing target site in connection with the Naval Air Station Quonset Point, Rhode Island ..." (document F-3). Later, on 23 March 1948, these same acres and an additional 113.9, for a 229 acre total, were condemned for the same purpose. This condemnation

was to end 30 June 1951 (document G-5). However, according to the FDE, the leasehold terminated in June 1949 (document E-1). Prior to condemnation, the Navy began building targets at Great Neck (document F-7). During the time the site was used, only F4U-4 Corsairs were identified as having flown training missions against the site (document I-9).

(2) There was a period of intervening private ownership before the state acquired the site. On 14 December 1982, Massachusetts, through an "Order of Taking" and the exercise of eminent domain, established SCBSP. The property acquired was 400 acres. It included all of the 229 acres once used by the U.S. Navy to practice aerial bombing at GNTR. Today, this land remains in usage as a conservation and recreational area, and it is managed by the Massachusetts Department of Environmental Management (document G-6). There is no DOD or Federal ownership today.

#### **b. Review of Ordnance Related Records**

(1) Research efforts began with a thorough review of all reports, newspaper articles, historical documents and reference material gathered during the archival records search. During this review, an effort was made to focus on areas of confirmed and/or potential OEW contamination. Sources that were checked in the search for any OEW contamination included:

- {a} U.S. Naval War College
- {b} National Archives:
  - {1} Military Reference Branch - Reviewed record groups 18, 107, 153, 160, 341, 394, and 407.
  - {2} Cartographic and Architectural Branch - Reviewed record groups 30, 71, 77 and 92.

- {3} Suitland Reference Branch - Reviewed Record groups 156 and 338.

- {c} Center for Military History
- {d} Explosive Ordnance Disposal
- {e} DOD Explosive Safety Board
- {f} EPA Superfund
- {g} Navy Historical Office - Aviation
- {h} Quonset Air Museum
- {i} Mashpee Police Dept.
- {j} Otis AFB MA
- {k} *THE CAPE COD TIMES*
- {l} Brown University Providence, RI

For a complete list of sources examined, see Appendix A, Reference Sources.

(2) Unlike most FUDS, there are no extant ordnance records for GNTR. Even when practice items have been found, no record has been made since the MA Air National Guard (ANG) Explosive Ordnance Disposal's (EOD) policy at Otis Air Force Base (AFB) is not to write reports for inert items (documents I-3). Hence, this ASR relies exclusively on interviews with site personnel for its findings.

(3) The SI Team reviewed newspaper accounts of the State of MA acquisition of SCBSP in *THE CAPE COD TIMES*. During this review of perhaps as many as fifty articles, there was not a single mention of Navy usage or OEW remaining to be cleaned up once the state had acquired ownership (document I-14).

(4) Real Estate documents G-1 through G-5 clearly establish that GNTR was condemned for the purpose of a PBR.

#### **c. Interviews with Site-Related Personnel**

(1) The interviews provided useful information, and although they were at times contradictory, they eventually led to a clear understanding of what had happened at GNTR. Most of the interviewees were approximately 70 years old, and their memories of events at GNTR were in many instances vague and in some instances nonexistent. Almost all were lifelong residents of the Mashpee, MA area, but some of them were gone during WW II. Based on most statements the WW II veterans provided, it seems obvious that the greatest amount of Navy or DOD activity had ended by the time they returned. They all seemed well aware of other FUDS in the area (e.g., Camps Wellfleet and Edwards, Martha's Vineyard, Washburn Island, and No Mans Land Island). In order to be helpful, they often offered information on these sites, even though they had been informed that those areas were outside the focus of this ASR. Many interviewees unquestionably believed what had happened at FUDS GNTR was insignificant, and the general reaction of the public was surprise since they had never heard of anything of a military nature having happened there (document F-3).

(2) However, MA ANG EOD at Otis AFB did indicate in interviews with the SI Team that they had been called to SCBSP as

recently as 1993 to take care of what turned out to be inert practice items (document I-3).

(3) Mashpee Police Sergeant Gerald Umina provided information which went against the majority of opinions about OEW at SCBSP. He said bullets and grenades are sometimes found there and turned over too the police. The SI Team decided this could not be totally correct. Sergeant Umina said when these items are found they are turned over to EOD at Otis AFB. Yet EOD denied ever having received or being called about bullets or real grenades found at SCBSP. This difference in statements may have had two causes. One might be what the Mashpee Town Clerk Mrs. Jane D. Labute called a tendency of local residents to refer to this whole area of Cape Cod as South Cape beach, which she said can at times create confusion as to whether someone is speaking of the state park SCBSP or the whole local area. The SI Team concluded that when people have found what they believed to be explosives and have given them to the police they have been using the general area term south Cape Beach. Moreover, it may be that what Sergeant Umina was referring to as grenades and bullets EOD determined to be inert, and, as such, it was not given any further consideration by EOD. Whereas Sergeant Umina, who is not trained to distinguish live ammunition from practice items, has mistakenly remembered every incident as actual findings of live items (documents I-3, I-7, and I-9).

(4) The most convincing interview as to what had happened at FUDS GNTR was with Mrs. Jane Labute. The information she provided was what her husband had told her. She had been contacted during the Historic Records Search several weeks prior to the beginning of the SI Team visit and had discussed the history of SCBSP with her husband prior to the SI Teams arrival. Mr. Labute was a WW II veteran who had returned to Mashpee, MA. before the war ended. He had been trained as a Navy Gunner. Part of that training was visual identification of friendly and enemy aircraft. In addition, Mrs. Labute described her husband as someone who "loves planes" and is very knowledgeable about them. Shortly after returning to the Mashpee, MA area before the war ended, Mr. Labute worked in construction near GNTR. While working on the roofs of buildings, he was able to see Navy Corsairs (and only Corsairs) doing practice bombing runs on GNTR. Fortunately, he recalled the target site, and Mrs. Labute was able to point it out on the map (document L-1). The target site was sheets, she said, hanging between two poles. Mrs. Labute said her husband said no training for amphibious landings

took place on GNTR. She said all amphibious training occurred on Washburn Island, which is about one mile away (and is DERP-FUDS SITE NO. D01MA0015 per Mrs. Anne Laster, CENED-RE-AM, Boston, MA). Any practice grenades found in the area were in her opinion there because they washed in from that island. This would be consistent with what EOD had said and what all real estate documents indicate (documents I-3 and G-1 through G-5). Finally, it should be noted that Mrs. Labute's opinion was that her husband is one of the few people alive in the area who really knows what happened at GNTR. She said almost everyone else has died or was absent from the area when the Navy was using GNTR (documents I-9, F-4, and L-1).

(5) The interview with Mr. Fleming supported the idea that no OEW today exists from GNTR at SCBSP. Besides being retired after 22 years with EOD at Otis AFB, Mr. Fleming is today the Senior Forest and Park Supervisor responsible for SCBSP. He said he knew of no OEW ever having been found at SCBSP. Moreover, he said that if any OEW had been there beneath the sand it would have been found after Hurricane Bob. That hurricane happened 19 Aug. 94, and in Mr Fleming's interview he observed that two feet of sand were removed from the dunes (documents I-1, I-13, and H-1).

(6) During the site inspection, the SI Team observed women entering SCBSP with a metal detector. Her name was Mrs. Audrey Varnerin. She said she had been coming to SCBSP for between six or eight years to use her metal detector; she was not exactly sure of the years. But she was sure that she had never found any OEW. She had found .22 cal. long rifle cartridge cases. The SI Team had noticed the same and ruled them out because they were too new and do not fit into a training scenario at a WW II PBR.

## 5. SITE ELIGIBILITY

### a. **Confirmed Formerly Used Defense Site**

(1) Former land usage by the U.S. Navy was confirmed for 229 acres and summarized in section 4 of this report.

(2) The condemnation documents did not contain a recapture or restoration clause (document E-1).

**b. Potential Formerly Used Defense Sites**

No areas were identified as Potential Formerly Used Defense Sites during the site inspection. As mentioned in Sec 4 c(4), Washburn Island is a FUDS nearby which has already been identified by CENED. It is about one mile from GNTR.

**6. VISUAL SITE INSPECTION**

**a. General Procedures and Safety**

(1) During the period of 11 Aug. through 18 Aug. 1994, members of the SI Team, Messrs. Charles H. Fowler and George Ofslager, traveled to the former GNTR, at Mashpee, MA. The primary task of the team was to assess OEW presence and potential due to storage, disposal, and/or usage of the site as a Navy practice target range. The site inspection was limited to non-intrusive methods; that is, subsurface sampling was not authorized or performed.

(2) It was not necessary to obtain real estate rights-of-entry to the site because the area is a public park.

(3) A site safety plan was developed and utilized by the assessment team to assure safety from injury during the site inspection of the area. Prior to the inspection, a briefing was conducted which stressed that OEW should only be handled by military EOD personnel (reference B-6).

(4) Prior to the site visit, a thorough review of all available reports, historical documents, texts, and technical ordnance reference materials gathered during the historical records search was made to ensure awareness of potential ordnance types and associated hazards.

**b. Area A: Target Area**

(1) The SI Team conducted both its visits 13 and 16 Aug. 1994 to GNTR without escort since it is a public area. Since 1 Jul. 82, as previously noted, GNTR has been SCBSP. Upon arrival at GNTR on 13 Aug., the parking lot attendant was questioned as to whether any OEW has ever been found at the park (document I-6). She was not aware that the park had ever been used by the U.S. Navy and had never heard of anyone ever finding OEW.

(2) The SI Team entered the target area along a walkway. Care was taken to avoid potential OEW. The magnetometer was used for safety and indicated no "hits." The team eventually walked the entire accessible area, excluding only those portions under water in Sage Lot Pond or swamp water and those areas covered too thickly by vegetation to allow safe visual confirmation prior to entering. There were a few places noticed with .22 cal long rifle cartridge cases. These cases were too new to have been used during U.S. Navy usage and would clearly not fit in a training scenario for a PBR. No OEW was seen during the visit. Special care was taken while looking at the target area. OEW was found (plate 2). It is in this area that TSGT Swanson was called to remove a practice bomb (document I-3 and Plate 2).

#### **c. Area B: Practice Bomb Range**

All the remaining land is considered to be Area B. All of this land, with the exception of areas under swamp water and areas where the SI Team could not see for weeds, bushes, and other vegetation, was visually observed by the SI Team. No evidence of OEW contamination was found.

### **7. EVALUATION OF ORDNANCE HAZARDS**

#### **a. General Procedures**

(1) The site was evaluated to determine confirmed, potential, or uncontaminated ordnance presence. Confirmed ordnance contamination is based on verifiable historical evidence or direct witness of ordnance items. Verifiable historical records evidence consists of ordnance items located on site and documented by the local bomb squad, Army or Air Force Explosive Ordnance teams, newspaper articles, correspondence, current findings, etc. Direct witness of ordnance items consists of the inspection team directly locating ordnance items by visual inspection. Additional field data is not needed to identify a confirmed subsite.

(2) Potential ordnance contamination is based on a lack of confirmed ordnance. Potential ordnance contamination is inferred from records or indirect witness. Inference from storage, usage, or disposal, at that time, which could have allowed present day ordnance contamination. Potential ordnance contamination could also be based on indirect witness or from

present day site features. Additional field data is needed to confirm potential ordnance subsites.

(3) Uncontaminated ordnance subsites are based on a lack of confirmed or potential ordnance evidence. Historical records evidence and present day site inspections do not indicate confirmed or potential ordnance contamination. There is no reasonable evidence, either direct or inferred, to suggest present day ordnance contamination. Additional field data is not needed to assess uncontaminated ordnance subsites.

**b. Area A: Target Area**

(1) Area A is considered confirmed contaminated. GNTR was a practice bomb range for U.S. Navy Corsair bombers. These bombers flew from Quonset Point RI. Based on when it was taken by the Navy, 25 Jan 45, and the fact that no WW II veterans who returned after the war were aware of its existence, training at GNTR was undoubtedly brief. Yet records have not been found to indicate how brief. An interview was given which confirmed that it was indeed used by the U.S. Navy. AN-Mk. 23 3 lb practice bombs were dropped, and as recently as July 93 EOD at Otis AFB was called to remove an AN-Mk. 23, which did not in this case contain a spotting charge. It was inert (documents I-3 and I-9). This is the only evidence of OEW remaining after DOD use.

(2) There is a potential that if there is any other OEW, it is from the authorized spotting charge for the AN-Mk. 23, which is the AN-Mk. 4. Components of the AN-Mk. 4 are described in Table 8-1. However, since none have been found, it is possible none were used. The target described by the only witness, Mr. Labute, was sheets between two poles. This being the case, the spotting charge would have been superfluous because bombs striking the target should have been distinguishable from bombs that missed the target (document I-9).

(3) The INPR "Checklist for DERP-FUDS Site Visits Real Estate Concerns" indicates usage at SCBSP to be between 200 and 300 people per day during the summer. The park has been owned by MA since 1 Jul. 82. Even by conservative estimates of 11 years usage at 90 days per year and 200 people per day having visited FUDS GNTR, it seems likely that at least 200,000 people have visited the site. That no one, like the parking lot attendant, the Park Supervisor, or other park employees, would remember having ever heard of actual OEW by now makes an obviously strong

statement that probably none exist today. The SI Team can only speculate as to why this is. The following are offered as possibilities: First, the U.S. Navy had personnel return to the site when its use ended and they removed all OEW. Since Mr. Labute described the target as being sheets between two poles, someone would have had to service the target and thus would have been available to police up the PBR if they were told to do so. Second, it was pointed out during the interview with EOD that many people in the area have collected AN-Mk. 23 practice bombs much like some people scavenge for arrowheads in some parts of the country. Consequently, if the site was used only briefly as all evidence suggests, to the point where many local people who were in Mashpee, MA shortly after WW II were not even aware of its use, it may not have contained a significant number of practice bombs in the first place, making the carting off of them by just a few people another possibility (documents E-8, F-3, I-1, I-3, I-4, I-6, I-11, I-12 and I-14).

(4) Also contributing to a strong argument that risks of additional OEW are not high was statements made by Mr. Fleming the Senior Forest and Park Supervisor responsible for SCBSP. As a retired EOD Airman, Mr. Fleming would have no doubt taken an interest in any OEW had he heard about it. Yet he said there has never been any, and he further stated that if there were any it would have been found after Hurricane Bob removed two feet of sand from the dunes on the beach (document I-1). On the other hand, it may have been this storm that worked the practice bomb found by EOD two years latter up to the surface. Mr. Fleming said he was unaware of that practice bomb.

(5) Moreover, any OEW which is present must be scant or hard to find if Mrs. Audrey Varnerin, who has been using her metal detector at SCBSP for about 7 years, has not managed inadvertently to find some (document I-15).

(6) The only evidence, then, of OEW being found within Area A was the AN-Mk. 23 bomb without a spotting charge described by EOD as inert (document I-3). Even though any additional OEW seems unlikely, there is a slight potential that other practice bombs do exist, and they may have the spotting charge present.

#### **c. Area B: Practice Bomb Range**

Area B is considered potentially contaminated by OEW. Based on the fact that Area A was used as a practice bomb range and that a practice bomb was found there in 1993, it is possible

that areas outside of the target area, that is, Area B may contain practice bombs. If present, it is likely they are in the subsurface or water areas. It is also possible that they would contain spotting charges, though no practice bombs of any type have been documented as having been found in Area B. The practice hand grenade mentioned in section 4. c.(4) is not believed to have originated at this site. Rather, it is suspected that it did wash in from Washburn Island where infantrymen trained for amphibious landings during WWII. This grenade is a solid piece of metal shaped like a grenade but without a filler, a practice fuze, or even a place where a fuze could be attached. Washburn Island is about one mile away. The grenades usage would not fit in with the likely training or tactics at what records only show to have been a Navy practice bomb range.

## 8. SITE ORDNANCE TECHNICAL DATA

### a. End Item Technical Data

No comprehensive list of the exact types or models of ammunition used at GNTR was uncovered. Data was compiled based upon the explanation offered in Sec. 7 paragraph b.(2).

TABLE 8-1 Ammunition Used and Explosives/Chemical Filler		
Item	Type/Model	Filler Weight
Bomb, Practice w/o Signal	3 lb/ (AN-Mk-23)	Inert (cast iron)
Bomb, Practice W/Signal Red Phosphorus	3 lb/ (AN-Mk-23) /Mk 4	Inert (cast iron) 10 gm Zinc Oxide or 3 gm Black Powder 3 gm Smokeless Powder Titanium Tetrachloride

b. Chemical Data of Ordnance Fillers

TABLE 8-2 Chemical Data of Ordnance Fillers		
Explosive Materiel	Synonym(s)	Chemical Formula
Black Powder		
74% Potassium Nitrate	Saltpeter; Niter	$\text{KNO}_3$
11% Sulfur		S
16% Charcoal	C	
Red Phosphorus	P	
Nitrocellulose	Guncotton; Pyroxylin; Nitrocotton; Cellulose Nitrate	$[\text{C}_6\text{H}_8\text{O}_5(\text{NO}_2)_3]_n$
Smokeless Powder	(see nitrocellulose)	
Flashless-nonhygroscopic (FNH)		
Nonhygroscopic (NH)		
Titanium Tetrachloride	White Smoke	$\text{TiCl}_4$

9. OTHER ENVIRONMENTAL HAZARDS

a. Hazardous, Toxic, and Radiological Waste

There is nothing on site to indicate any hazardous, toxic, or radiological waste at GNTR.

b. Building Demolition/Debris Removal

There were no buildings on GNTR when it was a PBR and there is only a guard shack today (document I-9).

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX A

REFERENCE SOURCES

**REFERENCE SOURCES**

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
<b>GOVERNMENT SOURCES</b>			
<b>FEDERAL AGENCIES</b>			
<u><b>DEPARTMENT OF DEFENSE</b></u>			
Defense Technical Information Center Alexandria, VA 22304	Computer	(800) 225-3842	Automated Search
Defense Library On Disk Pentagon Library Pentagon Room 1A518 Washington, DC 20310-6080	CD-ROM	(703) 697-4658 (202) 287-9474	No Information
Defense Logistics Studies Information Exchange Army Logistics Management College Fort Lee, VA 23801-6043	On-Line	(804) 765-4007	No Information
Department of Defense Explosive Safety Board 2461 Eisenhower Ave Alexandria, VA 22331	Mr. Carr	(815) 273- 8730	No Information
<b>Army</b>			
Military History Institute Carlisle Barracks Carlisle, PA	Mr. Vetock	(717) 245-3611	No Information

# REFERENCE SOURCES

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
US Army Center for Military History Washington, DC 20536	Ms. Zeidlik	(202) 504-5416	No Information
US Army Ordnance ATSL-DOS-M Bldg 2601 Aberdeen Proving Ground, MD 21005-5201	Dr. Atwater	(410) 278-3602	No Information
Army Safety Management Information System Fort Rucker, AL 36322	Ms. Ballard	(815) 273-8744	No Information
<b>AMC</b> AMCCOM Historical Office Rock Island, IL 61299	Dr. Lefore	(309) 782-1276	No Information
US Army Technical Center for Explosive Safety Savanna, IL	Mr. Reinhardt	(815) 273-8789	Background Material
<b>COE</b> Corp of Engineers Humphreys Engineer Center 7701 Telegraph Road Alexandria, VA 22310	Dr. Gordon	(703) 355-3558	No Information
Corp of Engineers New England Division 424 Trapelo Road Waltham, MA 02254	Mr. Batt	(617) 647-8590	Background Material

# REFERENCE SOURCES

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
<b>Navy</b>			
Naval Facilities Engineering Command 200 Stovall Street Alexandria, VA 22332	Mr. Judkins	(703) 325-2128	No Information
Northern Division Naval Facilities Engineering Command 10 Industrial Highway Mail Stop #82 Philadelphia, PA 19113-2090	Mr. Dejulio	(215) 595-0756	No Information
US Navy Portsmouth Naval Shipyard Code: 870H Portsmouth, NH 03801-5000	Mr. Dolph	(207) 438-3550	No Information
Navy Historical Office-Operational Archives 901 M St., Bldg 57 SE Washington, DC 20374	Mr. Hodges	(202) 433-3171	No Information
US Naval War College Library 686 Cushing Road Newport, RI 02841	Ms. Rauch Dr. Cherpak	(401) 841-4551	List with pos- sible sources

# REFERENCE SOURCES

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
Naval Construction BN Center Code 10H-NAVFAC Historian Port Hueneme, CA 93043-5000	Dr. Transano	(805) 982-5913	No Information
Navy Historical Office-Aviation History Branch Wny 901 M Str SE Washington, DC 20374	Ms. Walters	(202) 433-4358	No Information
Naval Aviation Museum NAF Pensacola Pensacola, FL 32508	Mrs. McCann	(904) 452-8451	No Information
<b><u>Department of Agriculture</u></b>			
Soil Conservation Service Box 709 Barnstable, MA 02630	Mr. Spear	(508) 362-9332	Aerial Photos Reference B-2
<b><u>Department of Interior</u></b>			
Wildlife Refuge System Region # 5 300 Westgate Dr Hadley, MA 01035	Mr. Frickie	(413) 253-8568	No Information
<b><u>General Service Administration</u></b>			
National Personnel Records Center 9700 Page Ave St. Louis, MO 63132	Mr. Seibert	(314) 538-4085	No Information

### REFERENCE SOURCES

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
National Archives Cartographic & Architectural Branch 8601 Adelphi Rd College Park, MD 20740	Mr. Martin	(301) 713-7028	No information Record Groups: 30, 71, 77, & 92
National Archives- Military Reference Branch Pennsylvania Ave & 7th St Washington, D.C. 20408	Mr. Peuser	(202) 501-5385	No Information Record Groups: 18, 107, 153, 160, 341, 394, 407
National Archives Reference Branch 4205 Suitland Rd Suitland, MD 20409	Ms. Hanna/Ms. Collier	(301) 763-7410	No Information Record Groups: 156 and 338
<b><u>Regional Archives</u></b>			
National Archives New England 380 Trapelo RD Waltham, MA 02154	Mr. Tozeski	(617) 647-8100	Information Provided
<b><u>Smithsonian Institute</u></b>			
Air and Space Museum Historical Research Washington, DC	Mr. McCutcheon	(202) 357-3133	No Information
<b><u>Environmental Protection Agency</u></b>			
EPA-Boston Region 1 JFK Federal Bldg Boston, MA 02203	Staff	(617) 565-3300	No Information

# REFERENCE SOURCES

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
EPA-Superfund 90 Canal St. Boston, MA 02114	Mr. Thys	(617) 573-5729	No Information
EPA-Superfund Federal Facilities Section JFK Federal Bldg Boston MA 02203-2211	Ms. Hume	(617) 223-5539	No Information
<b>STATE AGENCIES</b>			
SHPO Massachusetts Historical Commission 80 Boylston St. Boston, MA 02116	Ms. McDonough	(617) 727-9194	No Information
Natural Heritage and Endangered Species Program 100 Cambridge St. Boston, MA 02202	Mrs. Kelly	(617) 727-9194	Provided List of Endangered and Threatened Species
Massachusetts Air National Guard Otis Air Force Base Bldg 128 102 CES/EOD Otis ANGB, MA 02542-5028	TSGT Swanson TSGT Perra	(508) 968-4861	Interview I-3

**REFERENCE SOURCES**

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
<b>City Agencies</b>			
Town Clerk's Office 16 Great Neck Road Mashpee, MA 02649	Mrs. Labute	(508) 539-1416	Interview I-9
Mashpee Police Dept. 99 Nathan Ellis Hwy Mashpee, MA 02649	Sergeant Umina	(508) 539-1480	Interview I-7
Tax Assessor's Office 16 Great Neck rd. North Mashpee, MA 02649	Mr. Porter	(508) 539-1416	Interview I-11

**NON-GOVERNMENT SOURCES**

<b>National Agencies</b>			
Scientific and Technical Information Library Automation System Huntsvill, AL 35806	Mrs. Skupien	(815) 273-8771	No Information
DIALOG Information Services Inc Chicago, IL 60601	Mrs. Skupien	(815) 273-8771	No Information
Online Computer Center Dublin, OH 43017-3395	Ms. Bey	(815) 273-8772	No Information

# REFERENCE SOURCES

The following organizations/personnel are acknowledged for their support.

Organizations	Name	Telephone	Support
<b>State Agencies</b>			
Brown University John D. Rockefeller Library Providence, RI 02912	Mr. McManus	(815) 273-8825	No Information
<b>City</b>			
Quonset Air Museum P.O. Box 1571 North Kingstown, RI 02852	Mr. Weekley	(401) 294-9540	Interview I-4
Mashpee Archives #13 North Great Neck Rd. Mashpee, MA 02649	Mrs. Burns	(508) 539-1438	Interview I-2
<i>THE CAPE COD TIMES</i> 319 Main St. Hyannis, MA 02649	Mrs. Hallaren	(508) 775-1200	Interview I-14
<i>THE ENTERPRISE</i> 50 Depot Avenue Falmouth, MA 02540	Mrs. Pease	(508) 548-4700	Letter F-4
<b>Private Individuals</b>			
P.O. Box 254 Mashpee, MA 02649	Mr. Jonas	(508) 420-2078	Interview I-8
24 Adam Circle Carver, MA 02330	Mrs. Varnerin	(508) 866-6912	Interview I-15

ORDNANCE AND EXLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
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APPENDIX B

REFERENCES AND ABSTRACTS

ORDNANCE AND EXPLOSIVES WASTE  
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REFERENCES AND ABSTRACTS

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B-1 Defense Environmental Restoration Program OEW Inventory Project Report: Mashpee Island Bombing Target Range D01MA045001 (document E-1).

B-2 Soil Survey of Barnstable County, Massachusetts,  
March 1993.

B-3 State of the Bay 1992 Waquoit Bay Watershed, Falmouth,  
Mashpee, Sandwich (document E-2).

B-4 "Rare Species Occurring Currently or Historically in the Vicinity of Great Neck, Mashpee," Massachusetts Natural Heritage and Endangered Species Program, Division of Fisheries and Wildlife, 100 Cambridge Street, Boston, MA 02202, dated 8 July 1994 (document E-3).

B-5 "The Waquoit Bay National Estuarine Research Reserve Report 1992," Appendix B "Plant Communities and Wildlife at South Cape Beach State Park," Provided by The Waquoit Bay National Estuarine Research Reserve (document E-4).

B-6 Site Safety and Health Plan, Appendix B-10.

B-7 TM 9-1980, Bombs For Aircraft, November 1944 (reference D-1).

B-8 Mandatory plan for Ordnance and Explosive Waste (OEW)  
Mandatory Center of Expertise (MCX) and Design Center, CEHND  
1105-3-9, U.S. Army Corps of Engineers, Huntsville Division, 10 August 1992.

B-9 Defense Environmental Restoration Program for Formerly Used  
Defense Sites, Ordnance and Explosive Waste, Archives Search  
Report Instructions, Versions 1.0 with changes , U.S. Army Corps  
of Engineers, Rock Island District, 21 December 1992.

B-10 Site Safety Plan for OEW Investigations (Appendix A-17, only, U.S. Army Corps of Engineers, Rock Island District, 25 June 1992.

B-11 Letter from Mrs. Jane D. Labute, Mashpee, MA Town Clerk, to Tom Reinhardt, dated 11 August 1994, subject: Referencing Map with Project Location (document F-4).

B-12 Letter from Cynthia A. Pease, *The Enterprise*, Falmouth Publishing Co., Inc., to Commander Chuck Fowler [sic], dated August 22, 1994, subject: No Evidence of Bombing Practice at South Cape Beach (document F-3).

B-13 Letter from Brona Simon, State Archaeologist, Deputy State Historic Preservation Officer, Massachusetts Historical Commission, to Donald G. Young, Assistant Regional Director, US Department of the Interior, Fish and Wildlife Service, 300 Westgate Center Drive, Hadley, MA 01035-9589, dated July 18 1994, subject: Mashpee National Refuge, Mashpee and Falmouth, MA FWS/R-5 (MHC #12926) (document F-1).

B-14 Letter from P.M. Jeffords, Naval Air Base, First Naval District, Quonset Point, Rhode Island (Headquarters), to Chief of the Bureau of Yards and Docks, Commandant, FIRST Naval District, dated 5 Jun 1945, subject: Request for Action to obtain and Extend Certain Leasehold Interests Voluntary and Condemned for the Fiscal Year 1946 (document F-5).

B-15 Article from *THE CAPE COD TIMES*, Hyannis, MA, Title: "Hurricane Pounds Cape," dated Aug 20 1991 (document H-1).

B-16 Article from *THE CAPE COD TIMES*, Hyannis, MA, Title: "Wreckage on shore testament to Power" "Bob left few boats unturned," dated Aug 21 1991 (document H-2).

B-17 Article from *THE CAPE COD TIMES*, Hyannis, MA, Title: "State damage costs estimated at \$1B," dated Aug 21 1991 (document H-3).

B-18 Letter from Department of Justice, United States Attorney, Edmund J Brandon, District of Massachusetts to Lt. Robert H. Gallagher, Officer-in-Charge, Bureau of Yards and Docks, Real Estate Division - Regional Office, 305 Washington Street, Brooklyn, New York, dated July 12, 1945, subject: U.S. v. 115.1 acres of land, more or less, in Mashpee, Barnstable County, Massachusetts, Realty Operators Corporation, et al., Misc. Civil

B-19 Letter from Acting Secretary of the Navy, W. John Kenney, to The Honorable, The Attorney General, dated 22 April 1946, subject: Condemnation proceeding entitled United States v. 115.1 acres of land in Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, et al., (document F-6).

B-20 Petition For Condemnation, United States of America, Petitioner, v. 115.1 Acres of Land, More or Less, In Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, Et Al., Defendants, Misc. Civil No. 7024, dated 25 January 1945 (document G-1).

B-21 Amended Petition For Condemnation, United States of America, Petitioner, v. 115.1 Acres of Land, More or less, In Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, Et Al., Defendants, Misc. Civil No. 7024, dated 20 June 1945 (document G-2).

B-22 Motion to Further Amend Petition For Condemnation, United States of America, Petitioner, v. 115.1 Acres of Land, More or Less, in Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, Et Al., Defendants, Misc. Civil No. 7024, dated 8 April 1946 (document G-3).

B-23 Petition For Condemnation, United States of America, Petitioner, v. 229 Acres of Land, More or Less, Situate [sic] in the Town of Mashpee, County of Barnstable, Commonwealth of Massachusetts, and Realty operators Corporation, Et Al., Defendants, Misc. Civil No. 7359, dated 23 March 1948 (document G-4).

B-24 Further Amended Petition for Condemnation, United States of America, Petitioner, v. 229 Acres of Land, More or Less, Situate [sic] in the Town of Mashpee, County of Barnstable, Commonwealth of Massachusetts, and Realty Operators Corporation, Et Al., Defendants, Misc. Civil No. 7359, dated 22 May 1950 (document G-5).

B-25 Order of Taking South Cape Beach Mashpee, Corinna Tobey or Heirs, Chester A. Wright, JR., Ada Jonas, Rosanna Jonas or Heirs E. Winthrop Hall or Heirs, New Seabury Corporation, Owners Unknown To Commonwealth of Massachusetts Dept. Of Environmental Management, dated 14 December 1982 (document G-6).

B-26 Memorandum from H. W. Johnson Public Works Officer U.S. Naval Air Station, Quonset Point, RI to Lt. (jg) John Renz of the Bureau of Docks Regional Real Estate Office, New York, dated 4 November 1944, subject: Bombing Target Areas, Earliest date that Navy Entered or used same (document F-7).

B-27 "CHECKLIST FOR DERP-FUDS SITE VISITS REAL ESTATE CONCERNS" taken from INPR dated 13 Jul 92 (document E-7).

B-28 Memorandum for Library Researcher, at Naval Air Station, Pensacola, FL from Charles H. Fowler, QASAS, USADACS Technical Center, Savanna, IL, subject: Request for Library Search, dated 21 Sep 94 (reference F-8).

B-29 Record of Phone Conversation between Mr. Ken Snyder of the Pensacola Naval Air Station and Mr. Charles H. Fowler of the Technical Center for Explosive Safety at the United States Army Defense Center and School at Savanna, IL, dated 23 Sep 94 (document F-9).

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
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MASHPEE, MASSACHUSETTS  
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APPENDIX C

GLOSSARY

ORDNANCE AND EXPLOSIVES WASTE  
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MASHPEE, MASSACHUSETTS  
OEW PROJECT NUMBER D01MA045001

APPENDIX C

GLOSSARY

BD/DR	Building Demolitiona/Debris Removal
CEHND	Corps of Engineers, Huntsville Division
CENCR	Corps of Engineers, Rock Island District
CENED	Corps of Engineers, New England District
COE	Corps of Engineers
CON/HTRW	Containerized/Hardous Toxic Radioactive Waste
CWM	Chemical Warefare Material
DA	Department of the Army
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
EOD	Explosives Ordnance Disposal
EE/CA	Engineering Evaluation/Cost Analysis
EPA	Environmental Protection Agency
EXO	Explosives Ordnance
FDE	Findings and Determination of Eligibility
FUDS	Formerly Used Defense Site(s)
GNTR	Great Neck Target Range
GR	Grain
HE	High Explosive
HTRW	Hazardous, Toxic, and Radiolocal Waste
HTW	Hazardous and Toxic Waste

INPR	Inventory Project Report
M	Model Number
MK	Mark
mm or MM	Millimeter
OEW	Ordnance and Explosives Waste
PA	Preliminary Assessment
PBR	Practice Bomb Range
PN	Project Number
QASAS	Quality Assurance Specialist (Ammunition Surveillance)
RD/RA	Remedial Design/Removal Action
RA	Remedial Action
SI	Site Investigation or Site Inspection
SCBSP	South Cape Beath State Park
USA	U.S. Army
USACE	U.S. Army Corps of Engineers
USADACS	U.S. Army Defense Ammunition Center and School
USAEDH	U.S. Army Engineer Division, Huntsville
USATCES	U.S. Army Technical Center for Explosives Safety
UXO	Unexploded Ordnance
WD	War Department
WW	World War
#	Pounds (lbs.)

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
Mashpee, MA  
PROJECT NUMBER D01MA045001

APPENDIX D

TEXTS/MANUALS

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
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MASHPEE, MASSACHUSETTS  
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TEXTS/MANUALS

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D-1 TM 9-1980 Bombs For Aircraft, War Department, November 1944  
p. 192 (reference B-7).

# TM 9-1980

WAR DEPARTMENT TECHNICAL MANUAL

"FOR USE AT THE  
CHEMICAL CORPS SCHOOL  
ONLY"

*Superseded Copy*

## BOMBS FOR AIRCRAFT

PROPERTY  
OF  
AMMUNITION INSPECTORS SCHOOL  
SAVANNAH ORDNANCE DEPOT

NO. \_\_\_\_\_

**RESTRICTED. DISSEMINATION OF RESTRICTED MATTER.**—The information contained in restricted documents and the essential characteristics of restricted material may be given to any person known to be in the service of the United States and to persons of undoubted loyalty and discretion who are cooperating in Government work, but will not be communicated to the public or to the press except by authorized military public relations agencies. (See also par. 236, AR 380-5, 15 Mar 1944.)

WAR DEPARTMENT • NOVEMBER 1944

powder should be covered with an inert, nonabrasive, powder such as talc, and brushed up with a soft brush. Any possible residue should be taken up by dabbing with a damp cloth.

**118. FLARE, AIRCRAFT, PARACHUTE, AN-M26.** *a. Data.* FLARE, aircraft, parachute, AN-M26, is a flare which is discharged from its case and ignited when the fuze functions. It is parachute supported and burns for 3 to 3.5 minutes with a yellowish light of 800,000 candle power. The fuze flare is 50 inches in length, 8 inches in diameter, and weighs 52.5 pounds. Authorized fuzes are the same as those authorized for the photoflash bomb described in paragraph 117.

*b. Assembly.* To assemble the complete round, proceed as follows:

(1) Remove the flare and fuze from the packings and inspect for serviceability.

(2) Unseal and remove the shipping cover from the base of the flare case.

(3) Uncoil the hangwire-arming wire assembly from the container, pass it around the case and thread the wire through the forward suspension lug. Be careful not to pull on the hangwire so strongly as to pull out the hangwire container.

(4) Set and assemble the fuze as described in paragraph 41.

(5) If the flare is not used, reverse the steps above and return flare and fuze to their original condition and packing.

## SECTION XIV. PRACTICE BOMBS

**119. GENERAL.** Practice bombs are provided for training of bombing crews in marksmanship. They resemble service bombs in appearance and flight characteristics and are provided with a fuze and spotting charge unless conditions make a special spotting charge unnecessary.

X **120. BOMB, PRACTICE, 3-LB., AN-MK. 5-MOD. 1.** *a. Data.* BOMB, practice, 3-lb., AN-Mk. 5-Mod. 1, is a streamlined miniature practice bomb 8.25 inches in length and 2.5 inches in diameter. It is made of chromium plated steel. The authorized spotting charge is SIGNAL, bomb, practice, miniature, AN-Mk. 4.

*b. Other models.* BOMB, practice, 3-lb., AN-Mk. 23, is the same as the AN-Mk. 5-Mod. 1 except that it is made of cast iron. BOMB, practice, 4.5-lb., AN-Mk. 43, is the same except that it is made of lead. Cartridge, M4 or M5 may be substituted for SIGNAL, bomb, practice, miniature, AN-Mk. 4.

## PRACTICE BOMB ASSEMBLIES

### Assembly With the Mk 4 Type Signal

**CAUTION:** Signals and bombs are not to be unpacked in advance of requirements. If unpacked and not used, return them to their original packings.

1. Remove the bomb and the signal from their packings.

2. Remove the cotter pin and the firing-pin assembly from the nose of the bomb. The firing-pin assembly should fit loosely in the bomb and not bind when being removed.

3. Check the bore through the center of the bomb; it must be clean, smooth, and not damaged in any way.

4. Inspect the firing-pin assembly for

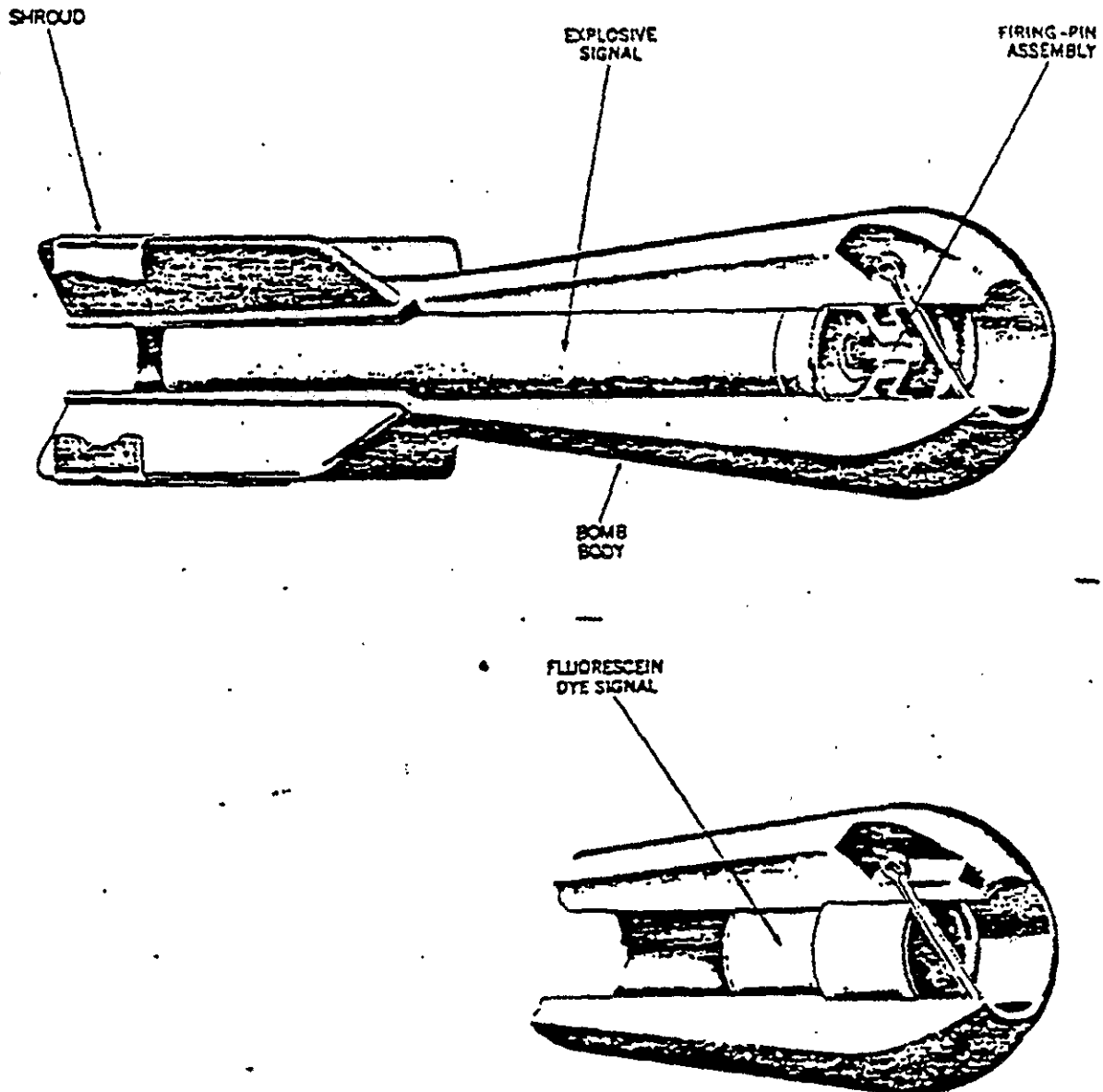


Figure 11-3.—3-b Miniature Practice Bomb AN-Mk 23 Mod 1, Cutaway View and Detail Showing Signal Mk 5 Mod 0 Installed.

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
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APPENDIX E

REPORTS/STUDIES

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
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REPORTS/STUDIES

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E-1 Defense Environmental Restoration Program OEW Inventory  
Project Report: Mashpee Island Bombing Target Range D01MA045001  
(reference B-1).

E-2 State of The Bay 1992, Waquoit Bay Watershed, Falmouth,  
Mashpee, Sandwich, (reference B-3).

E-3 "Rare Species Occurring Currently in the Vicinity of Great  
Neck, Mashpee," (reference B-4).

E-4 "The Waquoit Bay National Estuarine Research Reserve Report  
1992" Appendix B "Plant Communities and Wildlife South Cape Beach  
State Park," (reference B-5).

E-5 "CHECKLIST FOR DERP-FUDS SITE VISITS REAL ESTATE CONCERNS"  
taken from INPR dated 13 Jul 92 (reference B-27).

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM  
FOR  
FORMERLY USED DEFENSE SITES  
FINDINGS AND DETERMINATION OF ELIGIBILITY  
DERP-FUDS SITE NO. D01MA0450  
PROPERTY OF THE COMMONWEALTH OF MASSACHUSETTS  
(MASHPEE ISLAND BOMBING TARGET RANGE)  
MASHPEE, MASSACHUSETTS


FINDINGS OF FACT

1. The United States acquired approximately 229 acres leasehold by condemnation. The first acquisition was for 115.1 acres leasehold on 5 February 1945. On 23 March 1948 the United States condemned 229 acres leasehold (which included the original 115.1 acres parcel).
2. The site was called the Practice Bombing Area, Mashpee, Massachusetts. The Navy used the area in connection with Quonset Point Naval Air Station as a practice bombing target. There is no evidence that the Navy ever placed structures on the site. There is no evidence that the site was under other than DOD control during the period of DOD ownership.
3. The Navy's use of the site ended around 1949. The original leasehold over 115.1 acres terminated in 1946. The 229-acre leasehold terminated in June 1949. The condemnation documents did not contain a recapture or restoration clause. The language of the lease termination documents are unknown.

DETERMINATION

Based on the foregoing findings of fact, the site has been determined to be formerly used by DOD. It is therefore eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites established under 10 USC 2701 et seq.

28 SEP 92  
Date

  
BRINK P. MILLER  
Colonel, Corps of Engineers  
Commanding

**SITE SURVEY SUMMARY SHEET  
FOR  
DERP-FUDS SITE NO. D01MAC450  
PROPERTY OF THE COMMONWEALTH OF MASSACHUSETTS  
(NASHPEE ISLAND BOMBING TARGET RANGE)  
NASHPEE, MASSACHUSETTS  
31 July 1992**

**SITE NAME:** Practice Bombing Target Area No. 2 for the Naval Air Station, Quonset Point, Rhode Island

**LOCATION:** Great Neck, Mashpee, Massachusetts (site map attached).

**SITE HISTORY:** The site, consisting of approximately 229 acres leasehold, was acquired by condemnation. The Navy first acquired 115.1 acres leasehold in 1945 and used the area as a practice bombing target. There is no evidence that structures were ever constructed at the site. The lease for 115.1 acres terminated in 1946. In 1948 the Navy condemned 229 acres leasehold (which included the original 115.1-acre parcel previously leased). The Navy used this land as a practice bombing target. CENED believes that during or prior to the Navy's use of the area, the Army used the site as a training area for amphibious craft landings. However, CENED has been unable to find documentation of any use by the Army. The lease for 229 acres terminated in June 1949. The Commonwealth of Massachusetts, current owner of the site, obtained the site by condemnation in 1982. The site, a part of the South Cape Beach State Park, is a significant nesting area for piping plovers and terns. During the nesting season, access to a portion of the site is restricted.

**SITE VISIT:** A site visit was conducted on 29 May 1992 by Robert Martin and Dave Larsen of CENED. They were accompanied by Peter Thomas, Ranger, Commonwealth of Massachusetts (617-727-5537).

**CATEGORY OF HAZARD:** OEW.

**DESCRIPTION OF OEW HAZARD:** The site was used as a practice target bombing area in connection with the Quonset Point Naval Air Station in Rhode Island. There has been no ordnance reported by the owners at the site.

**AVAILABLE STUDIES AND REPORTS:** None identified.

**DIVISION POC:** Anne Laster, CENED-RE-AM, 617-647-8584.

**PROJECT SUMMARY SHEET  
FOR  
DERP-FUDS OEW PROJECT NO. D01MA045001  
PROPERTY OF THE COMMONWEALTH OF MASSACHUSETTS  
(NASHPEE ISLAND BOMBING TARGET RANGE)  
NASHPEE, MASSACHUSETTS  
DERP-FUDS SITE NO. D01MA0450  
25 August 1992**

**DESCRIPTION OF OEW HAZARD:** The site was used as a bombing range. There has been no ordnance reported by the owners at the site; however, ordnance may be present at the site.

**PROJECT ELIGIBILITY:** The site was used by the Navy as a practice bombing target.

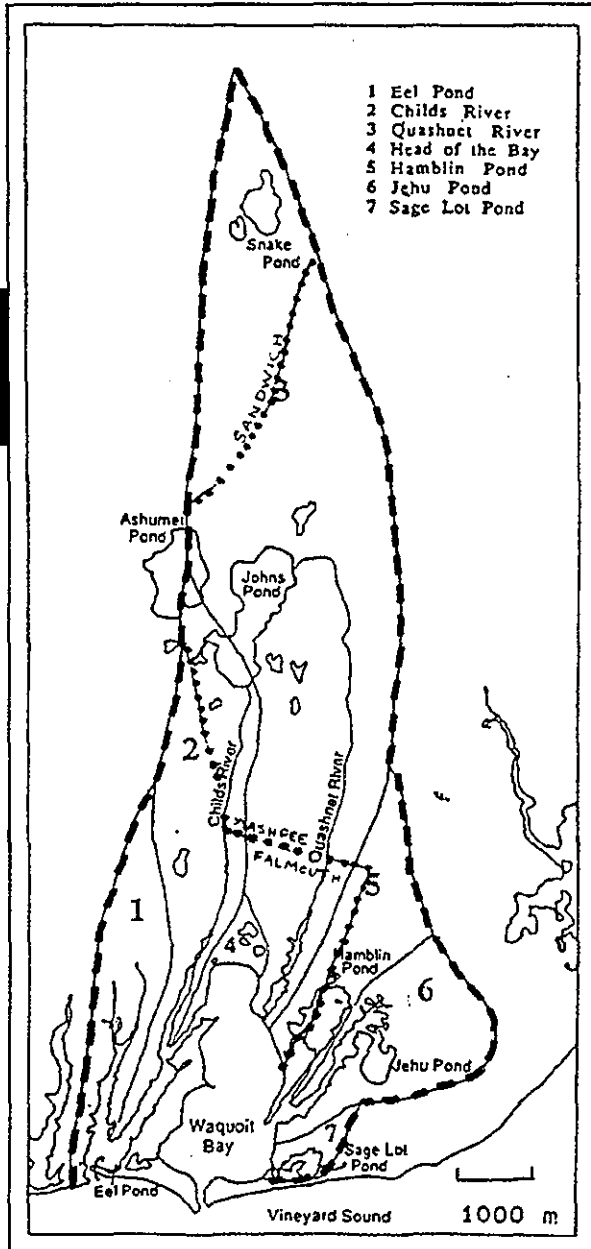
**POLICY CONSIDERATIONS:** The owner has not brought any ordnance onto the site. If any ordnance is present, it is likely the result of DOD use.

**PROPOSED PROJECT:** This INPR will be referred to CEHND-PM-OT for further action.

**RAC:** Attached.

**DIVISION POC:** Anne Laster, CENED-RE-AM, 617-647-8584.

# STATE OF THE BAY 1992



*Waquoit Bay Watershed  
Falmouth, Mashpee, Sandwich*

Association for  
the Preservation  
of Cape Cod

Waquoit Bay  
National Estuarine  
Research Reserve

Massachusetts  
Department of Environmental  
Management

CITIZENS FOR THE PROTECTION  
OF WAQUOIT BAY, INC.  
P.O. BOX 3021, WAQUOIT, MA 02536



## INTRODUCTION

Waquoit Bay, located on the southern shore of Cape Cod, and its watershed encompassing parts of Falmouth, Mashpee and Sandwich are the subjects of our concern (see Figure 1). Waquoit Bay, its watershed and estuaries encompass an area of approximately 20 square miles. The watershed extends from the mouth of Waquoit Bay to above Snake Pond in Sandwich, east to Jehu Pond in Mashpee and west to Ashumet Pond in Falmouth and Mashpee. Approximately 2.5 square miles of this area is surface water. The land area of the watershed crosses the political boundaries of Falmouth, Mashpee and Sandwich and encompasses the Waquoit Bay National Estuarine Research Reserve ("WBNERR") and a section of the Otis Air Force Base.

As you may be aware, disturbing trends are coming to light in Waquoit Bay based on research being conducted by scientists affiliated with the Waquoit Bay National Estuarine Research Reserve. These trends are the subject of this paper. Briefly they are:

- (1) declining water quality,
- (2) declining eelgrass beds,
- (3) declining species abundance, and
- (4) increasing incidence of "fish kills".

Mounting evidence indicates that these trends result primarily from land use in the watershed. The watershed consists of all land areas which drain into Waquoit Bay via streams and groundwater. What we dispose of in our drains, sinks and septic systems and what we apply to our lawns and gardens as fertilizers and pesticides enter the groundwater below.

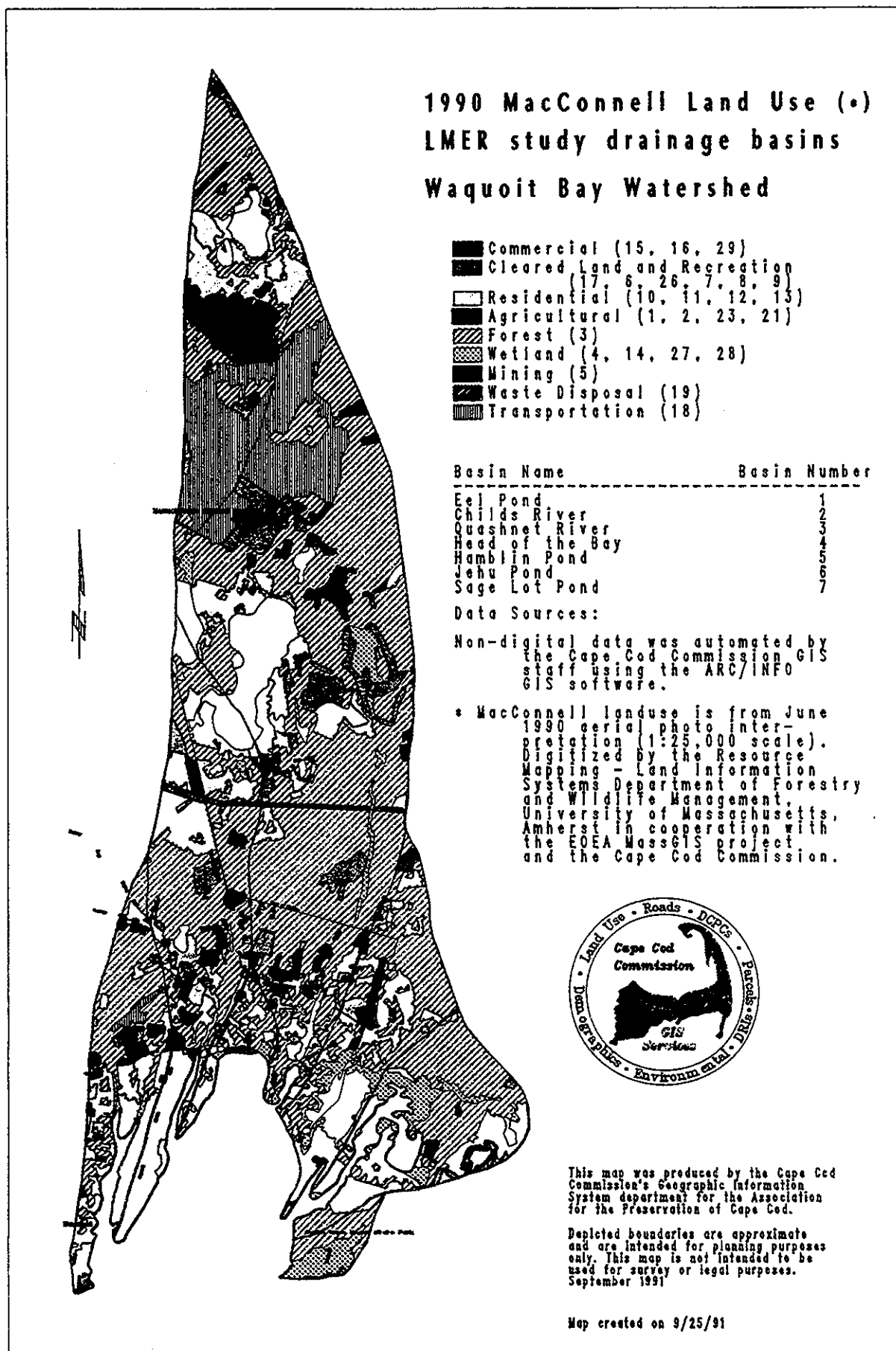
Groundwater flows beneath the entire watershed and eventually empties into Waquoit Bay. Consequently, our land use practices affect not only Waquoit Bay but drinking water supplies and fresh water ponds as well. In addition, runoff from streets and other paved areas carries bacteria and other contaminants directly into ponds, rivers and Waquoit Bay. The effects of our current land use practices are already evident in Waquoit Bay. Let us examine each of the trends.

## 1: DECLINING WATER QUALITY

Waquoit Bay is clearly suffering from eutrophication, an increase in organic and mineral nutrients in the water. Nutrients discharged into a bay cause excessive algae growth ("blooms") which floats in the water ("microalgae") and forms thick mats on the bay floor ("macroalgae"). Algae reduces the clarity of the water and consequently the amount of light penetrating the water surface. Although algae photosynthesize during the day, producing oxygen, at night or on overcast days they respire, consuming large amounts of oxygen.

The decline in water quality due to eutrophication has a number of effects. For example, the decrease in water transparency impairs the ability of eelgrass to grow and may lead to a loss of eelgrass beds which are important habitats for a variety of finfish and shellfish. In addition, the decline in oxygen caused by blooms of algae makes it difficult for some species to live on the bay floor. In severe cases of oxygen depletion marine organisms are killed.

Figure 1: Land Use Types in the Waquoit Bay Watershed



The nutrient of greatest concern in coastal waters is nitrogen. Approximately 75% of the nitrogen entering Waquoit Bay is from septic systems including currently permitted Title 5 systems (see Figure 2). As presently designed, septic systems remove bacteria but are not capable of removing nitrogen. Fertilizers such as those placed on lawns are the second major source representing about 23% of the nitrogen entering the bay. Because the number of houses in the Waquoit Bay watershed has increased tenfold from 785 in 1938 to over 8000 by 1984 (the most recent estimate available), nitrogen loading is increasing. In terms of acreage, residential land use has increased from 9% (1055 acres) of the watershed to approximately 22% (2638 acres). A dramatic increase in macroalgae in waters adjacent to highly developed land areas signals that groundwater entering the estuaries is elevating nutrient levels. Figure 3 illustrates this phenomenon by comparing the growth rates of two species of macroalgae in 3 subestuaries of Waquoit Bay. Childs is densely developed, Sage Lot contains little development and Quashnet is in between in terms of housing density.

Figure 2: Sources of Nitrogen Entering a Shallow Coastal Bay on Cape Cod

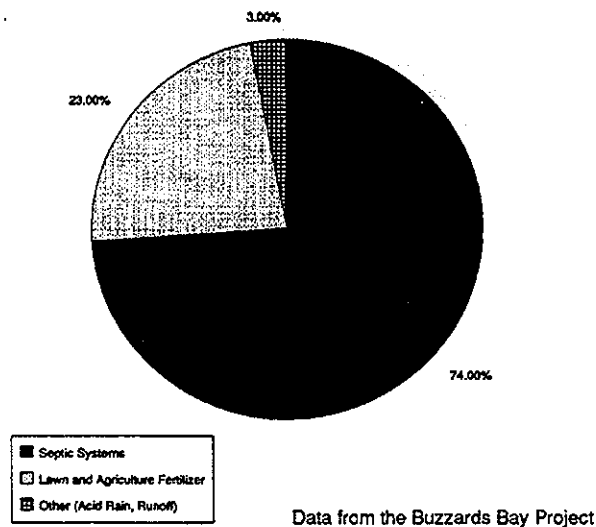
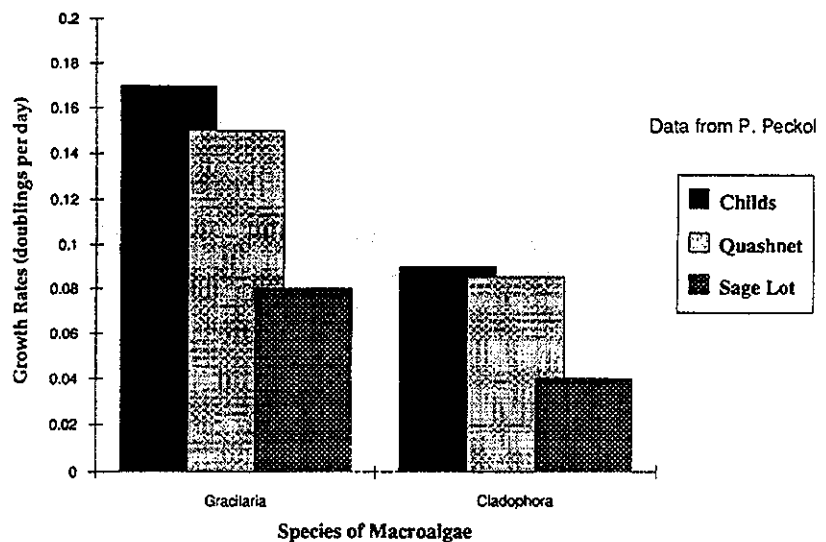


Figure 3: Growth Rates of Macroalgae in 3 Subestuaries

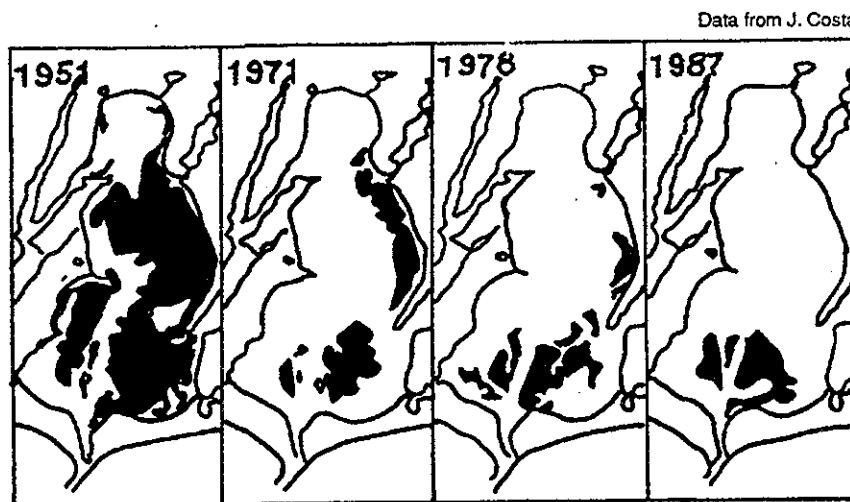


The exact cause-and-effect relationship between land use development and the decline in water quality requires more detailed study. However, research to date shows a clear connection. Perhaps what is most alarming is that the full impact of nitrogen loading from existing septic systems has not yet been realized. Because of the length of the Waquoit Bay watershed and the flow rate of groundwater moving within it, nutrients in groundwater can take anywhere from a few months to over 30 years to reach coastal waters.

## 2: DECLINING EELGRASS BEDS

As water quality declines, habitats are altered. Eelgrass beds in Waquoit Bay are declining in size. In 1950, there were approximately 200 acres of eelgrass habitat. By 1987, 80% of the eelgrass beds were lost with only 40 acres remaining. Eelgrass beds are nursery habitats for a variety of finfish and shellfish.

Figure 4: Declining Eelgrass Beds



One agent contributing to the downturn in eelgrass acreage is the unusually large mass of algae which results from the decline in water quality caused by nutrient loading. Scientists have found that excessive nutrient loading leads to large blooms of algae which reduce the amount of light reaching the eelgrass and compete with eelgrass for nutrients. Microalgae floats in the water giving the bay a greenish tinge, while macroalgae forms large mats on the bay floor which occasionally float to the surface. Scientists have found dense macroalgal accumulations of one-to-two feet in only three feet of water in Waquoit Bay.

Damage to eelgrass is caused by boat propellers in shallow water. Propellers cut through beds causing entire plants to be uprooted. In addition, boat traffic suspends sediments. This reduces sunlight reaching eelgrass, resulting in a decreased growth rate. Furthermore, research indicates that the suspension of sediments leads to a decline in water clarity. This puts eelgrass under stress, making it more susceptible to the "wasting disease."

The wasting disease, which occurred in the early 1930s and nearly eliminated eelgrass beds in the North Atlantic, is believed to be caused by a slime-mold-like protist, *Labyrinthula*. After decades eelgrass beds recovered. In contrast, the current decline in eelgrass beds linked to eutrophication is unlikely to reverse unless steps are taken to reduce the amount of nutrients entering the bay.

### 3: DECLINE IN ABUNDANCE OF SPECIES

As habitats are altered, plant and animal species adapt or decline. In addition to eelgrass, scientists have documented a decline over the last 20 years in the number of flounder, pollack, white hake and other species. Many of the species that have declined use eelgrass beds and shoal areas as nurseries. Not only has the overall acreage of eelgrass habitat declined, but those areas remaining are often covered with macroalgae, lowering their suitability for marine life. Recent scientific research in Hamblin Pond, part of the Waquoit Bay estuarine system, illustrates this point. The eelgrass research area with the lowest macroalgal loading had 18 species present while the most heavily loaded area had only eight.

It is thought that large quantities of macroalgae lower the suitability of eelgrass beds as nursery sites and habitats for several reasons. Large accumulations of algae appear to alter the type and quantity of food available, in part due to the change in water quality associated with a low dissolved oxygen content. Some marine organisms cannot withstand the stress of low dissolved oxygen levels caused by the respiration of algae. Protection for juvenile fish in eelgrass beds loaded with macroalgae may also decrease because movement is difficult and sometimes impossible. Small fish, when threatened, have been observed to dive for macroalgae but become mired in the outer edges.

Preliminary research indicates that a greater number of species and a more even population distribution exists in eelgrass beds without macroalgal accumulations. Species diversity is important to the stability of the coastal ecosystem as well as to commercial and recreational finfishing and shellfishing. Fishermen and consumers of seafood would likely tire of eating or catching only one kind of fish.

### 4: INCREASING INCIDENCE OF FISH KILLS

As mentioned previously, algae consume a large amount of oxygen during respiration. During cloudy days and nights in summer months, the respiration of algae greatly reduces the supply of dissolved oxygen in the water. Dissolved oxygen levels are replenished by plant photosynthesis during sunny days, counterbalancing the reduction in oxygen from respiration. However, after several cloudy days, dissolved oxygen can be depleted and fish, crabs, shrimps and other marine life suffocate ("fish kill").

In July 1987, 1988 and 1990, the northern beach of Waquoit Bay was strewn with thousands of dead winter flounder, shrimp and blue crabs. During July of 1991, another fish kill was narrowly averted. After several cloudy days, oxygen levels dropped and fish were observed to mass in shallows where dissolved oxygen concentrations are greater. Fortunately the weather cleared and dissolved oxygen levels rose. Fish kills have serious potential consequences beyond the actual event. The reproductive base of a species is reduced in the coming years, thereby contributing to a decline in species diversity.

## CONCLUDING COMMENTS

The trends revealed by scientific research are compelling. The general decline in coastal water quality is one symptom of our current land use practices in the Waquoit Bay watershed. The most visible results are a decline in eelgrass beds and increasing incidence of fish kills.

We cannot afford to wait while the trend towards lower water quality continues. If we wait, the risk increases that Waquoit Bay will be choked by mats of macroalgae and beaches will be littered by dead marine organisms. Neither the boaters, beachgoers, property owners or the species that live in and around Waquoit Bay and its watershed will benefit. Reasonable steps should be taken to reverse the trends identified by both long term residents and scientists.

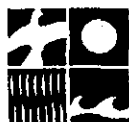
*Written by Peggy Sloan of the Association for the Preservation of Cape Cod in conjunction with the Waquoit Bay National Estuarine Research Reserve and the Citizens for the Protection of Waquoit Bay.*

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Waquoit Bay  
National Estuarine  
Research Reserve



Massachusetts  
Department of Environmental  
Management



Massachusetts Natural Heritage and Endangered Species Program  
 Division of Fisheries and Wildlife, 100 Cambridge Street, Boston, MA 02202  
 Rare Species Occurring Currently or Historically in the Vicinity of Great Neck, Mashpee

Taxonomic Class	Species Name	Common Name	Federal Status	State Rank
*** VERTEBRATES				
AMPHIBIA	HEMIDACTYLUM SCUTATUM	FOUR-TOED SALAMANDER		SC
AMPHIBIA	SCAPHIOPUS HOLBROOKII	EASTERN SPADEFOOT		T
AVES	ACCIPITER COOPERII	COOPER'S HAWK		SC
AVES	CHARADRIUS MELODUS	PIPING PLOVER	LELT	T
AVES	PARULA AMERICANA	NORTHERN PARULA		T
AVES	STERNA ANTILLARUM	LEAST TERN		SC
AVES	STERNA DOUGALLII	ROSEATE TERN	LELT	E
AVES	STERNA HIRUNDO	COMMON TERN	C2HL	SC
CEPHALASPIDOMORPHI	LAMPETRA APPENDIX	AMERICAN BROOK LAMPREY		T
OSTEICHTHYES	ACIPENSER BREVIROSTRUM	SHORTNOSE STURGEON	LE	E
REPTILIA	CLEMmys GUTTATA	SPOTTED TURTLE		SC
REPTILIA	MALACLEMYS TERRAPIN	DIAMONDBACK TERRAPIN		T
REPTILIA	TERRAPENE CAROLINA	EASTERN BOX TURTLE		SC
*** INVERTEBRATES				
BIVALVIA	LEPTODEA OCHRACEA	TIDEWATER MUCKET		SC
BIVALVIA	LIGUMIA NASUTA	EASTERN POND MUSSEL		SC
INSECTA	ANAX LONGIPES	COMET DARNER		SC
INSECTA	ENALLAGHA LATERALE	NEW ENGLAND BLUE		SC
INSECTA	ENALLAGHA RECURVATUM	BARRENS BLUE	SC	T
INSECTA	HEMILEUCA MAIA MAIA	COASTAL BARRENS BUCKMOTH		T
INSECTA	PAPAIPEMA SULPHURATA	WATER-WILLOW STEM BORER	C2	T
*** VASCULAR PLANTS				
	OPHIOGLOSSUM VULGATUM	ADDER'S-TONGUE FERN		T
DICOTYLEDONEAE	AGALINIS ACUTA	SANDPLAIN GERARDIA	LE	E
DICOTYLEDONEAE	COREMA CONRADII	BROOK CROWBERRY		SC
DICOTYLEDONEAE	HELIANTHEMUM DUMOSUM	BUSHY ROCKROSE	SC	SC
DICOTYLEDONEAE	POLYGONUM PURITANORUM	POND SHORE KNOTWEED		SC
DICOTYLEDONEAE	PRENANTHES SERPENTARIA	LION'S FOOT		E
DICOTYLEDONEAE	SABATIA KENNEDIANA	PLYMOUTH GENTIAN		SC
DICOTYLEDONEAE	UTRICULARIA FIBROSA	FIBROUS BLADDERWORT		T
DICOTYLEDONEAE	UTRICULARIA SUBULATA	SUBULATE BLADDERWORT		SC
MONOCOTYLEDONEAE	DICHANTHELIUM COMMUNIS	COMMON'S PANIC-GRASS		SC
MONOCOTYLEDONEAE	DICHANTHELIUM MATTANUSKEETENSE	MATTANUSKEET PANIC-GRASS		E
MONOCOTYLEDONEAE	DICHANTHELIUM WRIGHTIANUM	WRIGHT'S PANIC-GRASS		SC
MONOCOTYLEDONEAE	LACHNANTHES CAROLIANA	REDBOOT		SC
MONOCOTYLEDONEAE	PSILOCARYA HITENS	SHORT-BEAKED BALD-SEDGE		T
MONOCOTYLEDONEAE	PSILOCARYA SCIRPOIDES	LONG-BEAKED BALD-SEDGE		SC
MONOCOTYLEDONEAE	RHYNCHOSPORA INUNDATA	INUNDATED HORNED-SEDGE		T
MONOCOTYLEDONEAE	SAGITTARIA TERES	TERETE ARROWHEAD		SC
MONOCOTYLEDONEAE	SETARIA GENICULATA	BRISTLY FOXTAIL		SC

## KEY TO DFW RANK:

E = Endangered; T = Threatened; SC = Special Concern

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Massachusetts Natural Heritage and Endangered Species Program  
Division of Fisheries and Wildlife, 100 Cambridge Street, Boston, MA 02202  
Rare Species Occurring Currently or Historically in the Vicinity of Great Neck, Mashpee

Taxonomic Class	Species Name	Common Name	Federal Status	State Rank
MONOCOTYLEDONEAE	SPHENOPHOLIS PENNSYLVANICA	SWAMP OATS		T

39 Records Processed

KEY TO DFW RANK:

E = Endangered; T = Threatened; SC = Special Concern

C: Plants - 11  
c. 2/2

USE Against  
endangered list

Appendix B

Plant Communities and Wildlife

South Cape Beach State Park

Mashpee

MDEM

9-12-90

Table 1

## Habitat Types of South Cape Beach State Park, Mashpee, Mass.

## Key Beach/Sand Dune Community

- BB Barrier Beach Habitat
- SB Sandy Beach Habitat
- SD Sand Dunes Habitat
- SD-1 Unvegetated
- SD-2 Beach grass (Ammophila breviliquolata)
- SD-3 Shrub (Myrica pennsylvanica, Rosa rugosa)
- SD-4 Shrub mix (Rosa rugosa, Myrica pennsylvanica, Ammophila breviliquolata)
- SD-5 Shrub mix (Rosa rugosa, Myrica pennsylvanica, Phragmites australis)

## Wetland Community

- SM Salt Marsh Habitat
- SM-1 High marsh emergents (Spartina patens, Distichlis spicata)
- SM-2 Shrub mix (Iva frutescens, Rosa rugosa, Panicum virgatum)
- SM-3 Low marsh and tidal pool (Spartina alterniflora)
- TP Tidal Pond Habitat
- BM Brackish Marsh Habitat
- BM-1 Robust emergents (Typha angustifolia, Phragmites australis)
- BM-2 Narrow-leaved emergents (Scirpus americanus, Leersia oryzoides)
- BM-3 Shrub (Myrica gale, Spiraea tomentosa)
- FM Fresh Marsh Habitat
- FM-1 Robust emergents (Typha latifolia, Phragmites australis)
- FM-2 Narrow-leaved emergents (Scirpus americanus, Cladium mariscoides)
- FM-3 Aquatic bed (Nymphaea odorata)
- SS Shrub Swamp Habitat (Illex glabra, Vaccinium corymbosum, Rhododendron viscosum, Clethra alnifolia)
- BG Bog Habitat (Kalmia angustifolia, Myrica gale, Carex spp., Sagittaria spp.)

## Forested Community

- SF Softwood Forest Habitat (Pinus rigida) 80% dom.
- HF Hardwood Forest Habitat (Nyssa sylvatica, Quercus spp., Acer rubrum) 80 % dom.
- MF Mixed Forest Habitat (Pinus rigida, Quercus spp.) approx. 50% mix
- FS Forest/Shrub Mix Habitat (Pinus rigida, Vaccinium spp., Myrica spp.) approx. 50% dom.
- US Upland Shrubs & Sapling Habitat (Illex glabra, Vaccinium spp., Myrica spp.) 80% dom.

Table 2  
Vegetation Identified at South Cape State Beach  
Mashpee, Massachusetts

Common Name	Scientific Name
Trees	
Black cherry	<u>Prunus serotina</u>
Black gum	<u>Nyssa sylvatica</u>
Black oak	<u>Quercus velutina</u>
Bigtooth aspen	<u>Populus grandidentata</u>
Gray birch	<u>Betula populifolia</u>
Pitch pine	<u>Pinus rigida</u>
Post oak	<u>Quercus stellata</u>
Red cedar	<u>Juniperus virginiana</u>
Red maple	<u>Acer rubrum</u>
Sassafras	<u>Sassafras albidum</u>
Scarlet oak	<u>Quercus coccinea</u>
Scrub oak	<u>Quercus ilicifolia</u>
Swamp white oak	<u>Quercus bicolor</u>
White oak	<u>Quercus alba</u>
White pine	<u>Pinus strobus</u>
Shrubs	
Beach rose	<u>Rosa rugosa</u>
Beach plum	<u>Prunus maritima</u>
Black highbush blueberry	<u>Vaccinium atrococcum</u>
Black huckleberry	<u>Gaylussacia baccata</u>
Coast pepperbush	<u>Clethra alnifolia</u>
Common highbush blueberry	<u>Vaccinium corymbosum</u>
Early low blueberry	<u>Vaccinium vacillans</u>
Evergreen bearberry	<u>Arctostaphylos uva-ursi</u>
Groundsel tree	<u>Baccharis halimifolia</u>
Inkberry	<u>Illex glabra</u>
Large cranberry	<u>Vaccinium macrocarpon</u>
Late low blueberry	<u>Vaccinium angustifolium</u>
Maleberry	<u>Lyonia ligustrina</u>
Marsh elder	<u>Iva frutescens</u>
Nannyberry	<u>Viburnum lentago</u>
Northern arrowwood	<u>Viburnum recognitum</u>
Northern bayberry	<u>Myrica pennsylvanica</u>
Northern wild rasin	<u>Viburnum cassinoides</u>
Oblongleaf junberry	<u>Amelanchier canadensis</u>
Poison ivy	<u>Rhus radicans</u>
Poison sumac	<u>Rhus vernix</u>
Red chokeberry	<u>Pyrus arbutifolia</u>
Sheep laurel	<u>Kalmia angustifolia</u>
Steeplebush	<u>Spiraea tomentosa</u>
Sweet fern	<u>Comptonia peregrina</u>
Sweetgale	<u>Myrica gale</u>
Swamp azalea	<u>Rhododendron viscosum</u>
Swamp loosestrife	<u>Decodon verticillatus</u>

Table 2

Vegetation Identified at South Cape State Beach  
Mashpee, Massachusetts

<u>Common Name</u>	<u>Scientific Name</u>
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Northern wild rasin	<u>Viburnum cassinoides</u>
Oblongleaf juneberry	<u>Amelanchier canadensis</u>
Poison ivy	<u>Rhus radicans</u>
Poison sumac	<u>Rhus vernix</u>
Red chokeberry	<u>Pyrus arbutifolia</u>
Sheep laurel	<u>Kalmia angustifolia</u>
Steeplebush	<u>Spiraea tomentosa</u>
Sweet fern	<u>Comptonia peregrina</u>
Sweetgale	<u>Myrica gale</u>
Swamp azalea	<u>Rhododendron viscosum</u>
Swamp loosestrife	<u>Decodon verticillatus</u>

Table 2 (Continued)

<u>Common Name</u>	<u>Scientific Name</u>
Shrubs (continued)	
Tall huckleberry	<u>Gaylussacia frondosa</u>
Virginia rose	<u>Rosa virginiana</u>
Winged sumac	<u>Rhus copallina</u>
Winterberry	<u>Illex verticillata</u>
Wintergreen	<u>Galtheria procumbens</u>
Herbs	
Beach grass	<u>Ammophila breviliolata</u>
Beach pea	<u>Lathyrus japonicus</u>
Black grass	<u>Juncus gerardi</u>
Bladderwort	<u>Utricularia sp.</u>
Blue-eyed grass	<u>Sisyrinchium arcticola</u>
Blue joint	<u>Calamagrostis canadensis</u>
Blunt broom sedge	<u>Carex tribuloides</u>
Broad-leaved cattail	<u>Typha latifolia</u>
Bracken	<u>Pteridium aquilinum</u>
British soliders	<u>Cladonia cristalella</u>
Broom crowberry	<u>Corena conradii</u>
Coast blight	<u>Chenopium rubrum</u>
Coast sedge	<u>Carex exilis</u>
Cinnamon fern	<u>Osmunda cinnamomea</u>
Cowheat	<u>Mcclamyrum lineare</u>
Curled dock	<u>Rumex crispus</u>
Depford pink	<u>Dianthus armeria</u>
Downy goldenrod	<u>Solidago puberula</u>
Dusty miller	<u>Artemisia stelleriana</u>
Early seaside plantain	<u>Plantago juncoideis</u>
Field hawkweed	<u>Hieracium pratense</u>
Glasswort	<u>Salicornia europaea</u>
Greene's rush	<u>Juncus Greenei</u>
Hawkweed	<u>Hieracium sp.</u>
Icelandic moss	<u>Cetraria islandica</u>
Indian poke	<u>Veratrum viride</u>
Lanced-leaved goldenrod	<u>Solidago graminifolia</u>
Larger blue flag	<u>Iris versicolor</u>
Long sedge	<u>Carex folliculata</u>
Marsh fern	<u>Dryopteris thelypteris</u>
Marsh St. Johnswort	<u>Hypericum virginicum</u>
Mermaid weed	<u>Proserpinaca palustris</u>
Narrow-leaved cattail	<u>Typha angustifolia</u>
Panic grass	<u>Panicum longifolium</u>
Peppermint	<u>Mentha piperita</u>
Pink lady's slipper	<u>Cypripedium acaule</u>
Purple sea lavender	<u>Limonium carolinianum</u>
Reed	<u>Phragmites australis</u>
Rice cutgrass	<u>Leersia oryzoides</u>
Rough-stemmed goldenrod	<u>Solidago rugosa</u>
Round-leaved sundew	<u>Drosera rotundifolia</u>
Royal fern	<u>Osmunda regalis</u>

Table 2 (Continued)

<u>Common Name</u>	<u>Scientific Name</u>
Herbs (continued)	
Salt marsh cordgrass	<u>Spartina alterniflora</u>
Salt meadow cordgrass	<u>Spartina patens</u>
Seaside goldenrod	<u>Solidago sempivirens</u>
Skunk cabbage	<u>Symplocarpus foetidus</u>
Slender blue flag	<u>Iris prismatica</u>
Smartweed	<u>Polygonum sp.</u>
Soft-leaved sedge	<u>Carex disperma</u>
Soft rush	<u>Juncus effusus</u>
Spatulate-leaved sundew	<u>Drosera intermedia</u>
Sphagnum moss	<u>Sphagnum sp.</u>
Spike grass	<u>Distichlis spicata</u>
Spike rush	<u>Eleocharis sp.</u>
Spotted Joe-Pye weed	<u>Eupatorium maculatum</u>
Star flower	<u>Trientalis borealis</u>
Swamp rose mallow	<u>Hibiscus palustris</u>
Swamp thistle	<u>Cirsium muticum</u>
Switch grass	<u>Panicum virgatum</u>
Thread-leaved sundew	<u>Drosera filiformis</u>
Three-square sedge	<u>Scirpus americanus</u>
Tussuck sedge	<u>Carex stricta</u>
Twig rush	<u>Cladium marascoides</u>
Virginia strawberry	<u>Fragaria virginiana</u>
White water lily	<u>Nymphae odorata</u>
Whorled loosestrife	<u>Lysimachia quadrifolia</u>
Woody glasswort	<u>Salicornia virginiana</u>
Woolgrass	<u>Scirpus cyperinus</u>
Yarrow	<u>Achillea millefolium</u>
Yellow loosestrife	<u>Lysimachia terrestris</u>
Yellow thistle	<u>Cirsium horridulum</u>

## Vines

Common blackberry	<u>Smilax rotundifolia</u>
Common greenbriar	<u>Vitis labrusca</u>
Fox grape	<u>Smilax glauca</u>
Glaucous greenbriar	<u>Convolvulus sepium</u>
Hedge bindweed	<u>Ipomea purpurea</u>
Morning glory	<u>Rhus radicans</u>
Poison ivy	<u>Rubus flagellaris</u>
Prickly dewberry	<u>Rubus hispida</u>
Swamp dewberry	<u>Parthenocissus quinquefolia</u>
Virginia creeper	

Table 2 (Continued)

<u>Common Name</u>	<u>Scientific Name</u>
Herbs (continued)	
Salt marsh cordgrass	<u>Spartina alterniflora</u>
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Common greenbriar	<u>Vitis labrusca</u>
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Hedge bindweed	<u>Ipomoea purpurea</u>
Morning glory	<u>Rhus radicans</u>
Poison ivy	<u>Rubus flagellaris</u>
Prickly dewberry	<u>Rubus hispida</u>
Swamp dewberry	<u>Parthenocissus quinquefolia</u>
Virginia creeper	

Table 3

Birds Observed at South Cape Beach  
 Mashpee, Massachusetts  
 (Species noted during summer 1987)

Birds	Community Type <sup>1</sup>
Common Loon	WET
Double-crested Cormorant	WET
Great Egret	WET
Great Blue Heron	WET
Snowy Egret	WET
Green-backed Heron	WET
Mute Swan	WET, FOR
Canada Goose	WET
American Black Duck	WET
Mallard	WET
Northern Pintail	WET
American Wigeon	WET
Greater Scaup	WET
Black Scoter	WET
Common Goldeneye	WET
Bufflehead	WET
Red-breasted Merganser	WET
Osprey	WET
Ring-necked Pheasant	B/SD, WET
Ruffed Grouse	FOR
Bobwhite Quail	FOR
Sora	FOR
Piping Plover	WET
Killdeer	B/SD, WET
American Oystercatcher	B/SD, WET
Greater Yellowlegs	B/SD, WET
Willet	B/SD, WET
Spotted Sandpiper	B/SD, WET
Semipalmated Sandpiper	B/SD, WET
Bonaparte's Gull	B/SD, WET
Ring-billed Gull	B/SD, WET
Herring Gull	B/SD, WET
*Laughing Gull	B/SD, WET
Greater Black-backed Gull	B/SD, WET
Common Tern	B/SD, WET
Least Tern	B/SD, WET
*Rock Dove	B/SD, WET
Mourning Dove	FOR
*Whip-poor-will	B/SD, FOR
Belted Kingfisher	FOR
Hairy Woodpecker	WET
Downy Woodpecker	FOR
Common Flicker	FOR
Eastern Kingbird	WET, FOR
Eastern Phoebe	B/SD, FOR
Horned Lark	WET, FOR
Tree Swallow	B/SD
	B/SD, WET

Table 3 (Continued)

Birds	Community Type
*Barn Swallow	B/SD, WET
Bluejay	FOR
Common Crow	WET, FOR
Black-capped Chickadee	FOR
*White-breasted Nuthatch	FOR
*Brown Creeper	FOR
Tufted Titmouse	FOR
Sedge Wren	WET
Marsh Wren	WET
Golden-crowned Kinglet	FOR
American Robin	FOR
Northern Mockingbird	B/SD, WET, FOR
*Brown Thrasher	FOR
Gray Catbird	B/SD, WET, FOR
Cedar Waxwing	B/SD, FOR
European Starling	WET, FOR
Yellow Warbler	WET, FOR
Yellow-rumped Warbler	B/SD, WET
Pine Warbler	FOR
Common Yellowthroat	B/DS, WET, FOR
Rufous-sided Towhee	B/SD, WET
American Tree Sparrow	WET, FOR
Chipping Sparrow	B/SD, FOR
Sharp-tailed Sparrow	WET
Song Sparrow	B/SD, WET, FOR
Swamp Sparrow	B/SD, WET
*Savannah Sparrow	WET
Red-winged Blackbird	B/SD, WET
*Northern Oriole	FOR
Common Grackle	B/SD, WET
Brown-headed Cowbird	B/SD, FOR
*Cardinal	FOR
House Finch	B/SD, WET
*Purple Finch	B/SD, WET
American Goldfinch	B/SD, WET

Community Type

B/SD = Beach/sand dune  
WET = Wetland  
FOR = Forested

Note: Species observed in Waquoit Bay and Nantucket Sound included in wetland community.

\* "Massachusetts Breeding Bird Atlas Project", Massachusetts Audubon Society (unpublished)

<sup>1</sup> DeGraaf, R. M. and Rudis, D. D. 1986. New England Wildlife: Habitat, Natural History and Distribution. US Forest Service. General Technical Report NE-107

Table 4

Other Wildlife Noted at South Cape Beach  
Mashpee, Massachusetts

Mammals

<u>Common Name</u>	<u>Scientific Name</u>
Eastern chipmunk	<u>Tamias striatus</u>
Eastern cottontail	<u>Sylvilagus floridanus</u>
Eastern gray squirrel	<u>Sciurus carolinensis</u>
Meadow vole	<u>Microtus pennsylvanicus</u>
Muskrat	<u>Onodatra zibethica</u>
Raccoon	<u>Procyon lotor</u>
Red fox	<u>Vulpes fula</u>
Red squirrel	<u>Tamiasciurus hudsonicus</u>
Short-tailed shrew	<u>Blarina brevicauda</u>
White-tailed deer	<u>Odocoileus virginianus</u>

Reptiles and Amphibians

<u>Common Name</u>	<u>Scientific Name</u>
American toad	<u>Thamnophis s. sirtalis</u>
Eastern garter snake	<u>Thamnophis sirtalis sirtalis</u>
Eastern painted turtle	<u>Chrysemys picta picta</u>
Northern leopard frog	<u>Rana pipens</u>
Northern spring peeper	<u>Hyla c. crucifer</u>
Red-spotted newt	<u>Notophthalmus v. viridescens</u>
Spotted salamander	<u>Ambystoma maculatum</u>

CHECKLIST FOR DERP-FUDS SITE VISITS

REAL ESTATE CONCERNS

Site Name: Great Neck, Mashpee, Ma Date: 2/13/92  
Inspected By: Bob Martin, Dave Larsen, Peter Thomas

Part I--Real Estate History

1. What is the current name of the site?  
South Cape Beach
2. Who is the current owner?  
Massachusetts Dept of Environmental Management
3. What is the address and telephone number of the current owner?  
Stephen Carpenter  
Director of Forests + Parks  
(617) 727-3160 Ext. 650
4. Did the current owner acquire the property directly from the United States if not, does the current owner know who has owned the property since the United States disposed of it? No
5. Does the owner have a copy of the deed that he can send to our office (or give to you in person)?
6. Does the owner know what the military used the property for? practice landing Amphibious Craft
7. Does the owner know whether anyone else besides the military used the property during the time that the military owned it? No

Site: Great Neck

Date: 7/13/92

Part II--Condition of the Property

1. How is the site currently used, is the owner using it for a particular function, is it vacant?

Public Beach

2. What is the natural state of the site; bare, grass, tree covered, sand, beach, etc.?

Sand

3. Where is the property located--is it a rural area, a residential area, a commercial area?

Rural

4. What highways is the property near, what is its street address?

5. Is the property open to the public, how many people visit the area, is it easily accessible to invited or uninvited persons?

Open to public

Summer 200-300 per day

6. Does the owner know whether anyone has been injured on the property due to environmental conditions that might have resulted from the military activity that took place on the site (for example, falling into a silo built by the military)?

No one

7. What structures presently are on the site, were they built by the military, when?

None

8. What structures used to be on the site, were they built by the military, how were they removed?

None

Site: Great Neck

Date: 7/13/92

9. What is the present condition of the structures on the site (look to see if they fall into an "unsafe" category.)

*None*

What was the condition of the structures at the time that the military abandoned the site?

10. Are there any tanks or transformers on the site, if so, have they been used by the owner or anyone else since the military left the site, have they been altered in any way since the military used them?

*None*

11. Does the owner know whether there are any potential landfill areas at the property. If so, *None*

(a) what kind of material was deposited in the landfill?

(b) was the landfill created by the military, has it been subsequently used by other people?

(c) has the landfill been tested for contamination (if so, get a copy of the test results or any report)

12. Does the owner know whether there is any unexploded ordnance at the site?

*None*

13. What does the owner request that we do at the site? (include everything that the owner asks for, even items that do not qualify for remediation under DERP...like asbestos removal. Use other side of this page if needed)

*Nothing*

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
FORMER GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
OEW PROJECT NUMBER D01MA045001

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

TABLE OF CONTENTS

F-1 Letter from Brona Simon, State Archaeologist, Deputy State Historic Preservation Commission, to Donald G. Young, Assistant Regional Director, US Department of the Interior, Fish and Wildlife Service, 300 Westgate Center Drive, Hadley, MA 01035-9589, dated July 18 1994, subject: Mashpee National Wildlife Refuge, Mashpee and Falmouth, MA FWS/R-5/RW (MHC# 12926) (reference B-13).

F-2 Letter from the Department of Justice, United States Attorney Edmund J. Brandon, District of Massachusetts to Lt. Robert H. Gallagher, Office-in-Charge, Bureau of Yards and Docks, Real Estate Division - Regional Office 305, 305 Washington Street, Brooklyn, New York, dated July 12, 1945, subject: US v 115.1 acres of land, more or less, in Mashpee, Barnstable County, Massachusetts, Realty Operators Corporation, et al., Misc. Civil No. 7024 (reference B-18).

F-3 Letter from Cynthia A. Pease, *The Enterprise*, Falmouth Publishing Co., Inc., to Commander Chuck Fowler [sic], dated August 22, 1994, subject: No evidence of Bombing Practice at South Cape Beach (reference B-12 and document M-3).

F-4 Letter from Mrs. Jane D. Labute, Mashpee, MA Town Clerk, to Tom Reinhardt, dated 11 August 1994, subject: Referencing Map with Project Location (reference B-11).

F-5 Letter from P. M. Jeffords, Naval Air Base, First Naval District, Quonset Point, Rhode Island (Headquarters), to Chief of the Bureau of Yards and Docks, Commandant, FIRST Naval District, dated 4 Jun 1945, subject: Request for Action to obtain and Extend Certain Leasehold Interests Voluntary and Condemned for the fiscal Year 1946 (reference B-14).

F-6 Letter from Acting Secretary of the Navy, W. John Kenney, to The Honorable, The Attorney General, dated 22 April 1946, subject: Condemnation proceeding entitled United States v. 115.1 acres of land in Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators, et al., Misc. Civil 7024 (reference B-19).

F-7 Memorandum from H. W. Johnson Public Works Officer U.S. Naval Air Station, Quonset Point, RI to Lt. (jg) John Renz of the Bureau of Docks Regional Real Estate Office, New York, dated 4 November 1944, subject: Bombing Target Areas, Earliest date that Navy Entered or used same (reference B-27).

F-8 Memorandum for Library Researcher, at Naval Air Station, Pensacola, FL from Charles H. Fowler, QASAS, USADACS Technical Center, Savanna, IL, subject: Request for Library Search, dated 21 Sep 94 (reference B-28).

F-9 Record of Phone Conversation between Mr. Ken Snyder of the Pensacola Naval Air Station and Mr. Charles H. Fowler of the Technical Center for Explosive Safety at the United States Army Defense Center and School at Savanna, IL, dated 23 Sep 94 (document B-29).

July 18, 1994

Donald G. Young  
Assistant Regional Director  
US Department of the Interior  
Fish and Wildlife Service  
300 Westgate Center Drive  
Hadley, MA 01035-9589



RE: Mashpee National Wildlife Refuge, Mashpee and Falmouth, MA FWS/R-5/RW (MHC #12926)

Dear Mr. Young:

Thank you for your inquiry regarding the presence of cultural resources within areas proposed for acquisition by the US Fish and Wildlife Service in order to create the Mashpee National Wildlife Refuge, in Mashpee and Falmouth, Massachusetts. The MHC supports the efforts of the US Fish and Wildlife Service to create a refuge in Mashpee and Falmouth. The refuge should serve to protect a wide range of cultural resources as well as preserve significant watershed and habitat areas.

Mashpee is a place rich in cultural and natural resources associated with the Mashpee's Native people both past and present. For thousands of years the ponds, rivers, marshes, bays, and associated uplands have been an integral part of life for Native people in Mashpee. The variety of cultural resources, which can be expected within the proposed refuge include archaeological sites, traditional cultural places for hunting, fishing or plant gathering, cemeteries, buildings, structures, landscapes, road and trail networks, and sacred sites.

Most of the proposed refuge has not been subject to comprehensive cultural resources surveys, thus the information in MHC's inventory files is far from complete. Therefore the MHC requests that the US Fish and Wildlife Service undertake a cultural resources survey and consult with the Mashpee Wampanoag Tribe prior to and during the development of a management plan for the refuge.

Please see the enclosed map which compiles information on historic and archaeological sites and road networks from maps and inventory files at MHC. The map is confidential and should not be published in the wildlife refuge study. Most of the information on cultural resources available in MHC's files pertains to archaeological sites reported by avocational and professional archaeologists. Archaeological sites which have been identified within or in close proximity to the project area include:

- Punkhorn Point Cemetery (MSH-HA-11) - a 19th century Mashpee Wampanoag cemetery.
- Ockway Chapel/ South Mashpee School Site (MSH-HA-12) - site of school built in 1831; building moved off-site in 1970's.
- Alves Homestead Site (MSH-HA-13) - a late 18th/19th century Mashpee Wampanoag homestead site.
- Site 19-BN-246 - Ockway Bay, reported as a "shellheap", no other information.
- Site 19-BN-503 - Childs River, no information.
- Site 19-BN-627 - chipping debris, isolated find spot, no temporal/cultural association.

Massachusetts Historical Commission, Judith B. McDonough, *Executive Director, State Historic Preservation Officer*  
80 Boylston Street, Boston, Massachusetts 02116-4802 (617) 727-8470 Fax: (617) 727-5128 TDD: 1-800-392-6090

Office of the Secretary of State, Michael J. Connolly, *Secretary*

F-1

- Site 19-BN-628 - Dutchman's Brook, possible Early Archaic find spot.
- Site 19-BN-629 - Dutchman's Brook, Late Archaic find spot.

There is a great potential for as yet unidentified archaeological sites and traditional cultural properties within the area proposed for the refuge. A map of Mashpee drawn by Rev. Ezra Stiles in 1762 shows clusters of wigwams or house sites on Great Neck, along Ockway and Popponesset Bays, and along the Childs or Quashnet Rivers. Nineteenth century maps also show an extensive network of roads throughout the area. The Cahoon Map (1877), based on Mashpee's 1840's land allotment, identifies a number of house sites associated with Mashpee Wampanoag families, living in the Great Neck area. These include:

- Rosanna Jones Homestead (A) - south of Jehu Pond
- Nicholas Keeter Homestead (B) (present house on this site was built in late 19th century by Horatio Amos - MHC #21)
- Heirs of Matilda Simons (C)
- Elias DeGrass Homestead (D)
- an 18th/ 19th century mill site (E) - Quashnet River, Falmouth
- Sally Holland Homestead (F)
- Elijah W. Pocknet Homestead (G) - mouth of Mashpee River
- James DeGrass Homestead (H) - Ockway Bay
- Nathan Pocknet Homestead (I) - Ockway Bay
- Sophrina Young Homestead (J) - Witch Pond

The MHC recommends that you consult with the Mashpee Wampanoag Tribe and with the Mashpee Historical Commission for any information which they may have regarding cultural resources in the proposed refuge area.

These comments are offered to assist in compliance with Section 110 and Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800).

If you have any questions, please feel free to call Connie Crosby at this office.

Sincerely,

*Brona Simon*

Brona Simon  
State Archaeologist  
Deputy State Historic Preservation Officer  
Massachusetts Historical Commission

enclosure

xc: Mashpee Tribal Council  
Mashpee Historical Commission  
John Peters, Commission on Indian Affairs

DEPARTMENT OF JUSTICE  
UNITED STATES ATTORNEY  
DISTRICT OF MASSACHUSETTS

ADDRESS REPLY TO  
UNITED STATES ATTORNEY  
AND REFER TO INITIALS

BOSTON 9, July 12, 1945

JUL 13 1945

PPACIC:RM

Lt. Robert H. Gallagher  
Officer-in-Charge  
Bureau of Yards and Docks  
Real Estate Division - Regional Office  
305 Washington Street  
Brooklyn, New York

Dear Sir:

Re: U. S. v. 115.1 acres of land, more or  
less, in Mashpee, Barnstable County,  
Massachusetts, Realty Operators Corporation,  
et al., Misc. Civil No. 7024

Reference is made to the above-entitled condemnation  
proceeding for a practice bombing target site in connection  
with the Naval Air Station Quonset Point, Rhode Island, for the  
Navy Department.

I am in receipt of a letter, dated May 24, 1945, from  
the Head of the Real Estate Division to the Acting Head of the  
Lands Division, Department of Justice, stating that a contract  
had been entered into between the Navy Department and Charles  
L. Swift for the preparation of an appraisal of subject property  
and that upon completion a copy thereof was to be transmitted  
direct to this office.

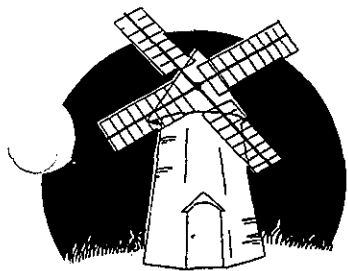
Mr. Swift was requested by letter, dated July 3, 1945,  
to immediately forward a copy of completed appraisal report to  
this office. Mr. Swift has replied under date of July 10, 1945  
to the aforesaid letter of July 3 stating: "I have had no in-  
formation or orders to do this, and as you know am in a difficult  
position to do it without orders from the New York Office. If you  
would ask the New York office to forward a report to you, I would  
be pleased to do so after their advice".

I was requested by the Department of Justice by letter,  
dated May 28, 1945, to examine the Swift appraisal and determine  
its adequacy for the purpose of this proceeding. Consequently,  
your immediate attention to this matter will be appreciated.

Very truly yours,

*Edmund J. Brandon*  
EDMUND J. BRANDON  
United States Attorney





# The Enterprise

FALMOUTH PUBLISHING CO., INC., 50 DEPOT AVENUE, FALMOUTH, MASS. 02540

TEL (508) 548-4700  
FAX (508) 540-8407

AUGUST 22, 1994

COMMANDER CHUCK FOWLER  
U.S. ARMY DEFENSE AMMUNITION CENTER SCHOOL  
SMCAC-ESL  
SAVANNA, IL 61074

DEAR COMMANDER FOWLER:

I CAN FIND NO EVIDENCE IN ANY OF OUR FILES OR BOOKS OF  
LOCAL HISTORY THAT SOUTH CAPE BEACH WAS USED FOR BOMBING  
PRACTICE.

YOU MAY BE AWARE THAT THE BEACH AS WELL AS WASHBURN  
ISLAND NEARBY AND OTHER AREA BEACHES WERE USED TO PRACTICE  
FOR SUCH INVASIONS AS NORMANDY IN 1943. AFTER 1945, HOWEVER,  
THE ISLAND WAS USED AS A RECREATIONAL AND RECUPERATION  
FACILITY FOR CAMP EDWARDS SOLDIERS.

I REALLY DOUBT THAT BOMBING WOULD HAVE BEEN ALLOWED ON THE  
MAINLAND. I AM SENDING YOU CLIPS, HOWEVER, OF A SMALLER  
ISLAND CALLED NOMANSLAND THAT WAS, AND MAY STILL BE, USED  
FOR TARGET BOMBING. IT WAS OFFICIALLY ACQUIRED BY THE NAVY  
IN 1954, BUT AS YOU CAN SEE FROM THE FIRST CLIP, IT WAS  
INITIALLY LEASED AS EARLY AS 1943.

I HOPE THIS HELPS YOUR RESEARCH.

SINCERELY,

*Cynthia Pease*  
WILLIAM H. HOUGH  
PUBLISHER

CYNTHIA PEASE

JANICE WALFORD  
MANAGING EDITOR

MEMBER AUDIT BUREAU OF CIRCULATIONS

CHRISTOPHER J. MEGAN  
DIRECTOR OF SALES

MARGARET HOUGH RUSSELL  
PUBLISHER

F-3



TOWN OF MASHPEE  
TOWN CLERK  
16 Great Neck Rd. North  
Mashpee, MA 02649

(508) 539-1416

TO: Tom Reinhardt  
FROM: Jane D. Labute, Town Clerk  
DATE: August 11, 1994  
SUBJECT: Referencing map with project location

All of this property now belongs to the Commonwealth of Massachusetts as shown on Maps 131 & 132 Mashpee Assessor's Maps. There are few people remaining in Town who have memory of practice bombing areas.

This location was used by the United States Navy flying Corsairs. They flew in from Vineyard Sound to the project location, ie. target. At the time they were using this area there was little use and the access was only by cart path. The surrounding property is now developed to the limit and the Commonwealth of Massachusetts is overseeing this site.

File No.

NA124/14-3/NI-13  
(80-E4)hn

NAVAL AIR BASES  
FIRST NAVAL DISTRICT  
QUONSET POINT, RHODE ISLAND  
(HEADQUARTERS)

Serial: 388-PH

5 JUN 1945

To: Chief of the Bureau of Yards and Docks  
Via: Commandant, FIRST Naval District

Subj: Request for Action to obtain and Extend Certain Leasehold Interests Voluntary and Condemned for the Fiscal Year 1946

Refs: (a) SecNav ltr Op30-2CH 3-ak, Ser 97630, dtd 19 March 1945  
(b) ComOne ltr to ComNAVB, lhd, file ND1/NI-13(DK) over NA124/14-3, dtd 26 May 1945, Subj: "Acquisition of Leasehold Interests by Condemnation Amendment of Condemnation Proceedings to Extend Term"  
(c) End-1 by ComOne, file ND1/14-3/NI-13(DK) over NA124/14-3, dtd 28 May 1945 on BuAer spdltr Maintenance Division over Aer-NA-3-RTB over NI-9/dtd 14 May 1945, subj: "Renewal of Leasehold Interests for the Fiscal Year 1946"

1. In ref (b) and (c) certain leasehold estates, voluntary and condemned, were listed and it was requested that information prepared in accordance with ref (a) be furnished justifying the continued use of the properties after 30 June 1945.

2. These properties are all being used to provide targets for gunnery training for carrier aircraft attached to the Fleet. Pertinent information on each property is listed herein as prescribed specifically in paragraph 2B of ref (a).

Property (a) Land (264.3 acres) at South Beach, Martha's Vineyard, Mass., formerly a moving target machine gun range and now a rocket range

1. Description of Premises Required by General Order No. 136

Several parcels of land aggregating 264.3 acres in area located at South Beach, Martha's Vineyard, Town of Edgartown, Dukes County, Mass.

2. Justification for Renewal

This area is being used for a rocket projectile target range. Its continued use is vital to the carrier aircraft gunner training program in this Command.

NA124/14-3/NI-13  
(80-84)hn

5 JUN 1945

Subj: Request for Action to obtain and Extend Certain Leasehold Interests  
Voluntary and Condemned for the Fiscal Year 1946

-----

3. Present Use of Property

Rocket projectile target range.

4. Existing Lease Number, etc.

Condemned leasehold interest requested and obtained by Massachusetts Miscellaneous Civil Suit No. 6811. Extension of the term of the suit to June 30, 1946 requested by ComNab, LMD ltr to BuAer, dated 2 Feb. 1945.

5. Information Regarding Naval Personnel

No additional personnel are required for the operation of the range.

6. Cost of Alterations and Repairs

Alterations and repairs comprising the installations of two rocket targets and observer's huts will cost \$2000.

7. Information on Office Space

Not applicable.

Property (b) Land, 2000 acres m/l, Tom Nevar's Area, so-called on Nantucket Island, Mass. used for Rocket Projectile Target Range

1. Description of Premises required by General Order No. 138

Several parcels of land aggregating 2000 acres, more or less, in area located in the Town of Nantucket, Nantucket County, Mass.

2. Justification for Renewal

This area is being used for a rocket projectile target range. Its continued use is vital to the carrier aircraft gunnery training program in this Command.

3. Present use of Property

Rocket projectile target range.

NA124/14-3/M-13  
(EO-E4)hn

5 JUN 1945

Subj: Request for Action to obtain and Extend Certain Leasehold Interests  
Voluntary and Condemned for the Fiscal Year 1946

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4. Existing Lease Number

Condemned leasehold interest requested and obtained by Massachusetts Miscellaneous Civil Suit No. 6810. Extension of the term of this suit to July 30, 1946 requested in COMNAV, 1ND ltr to Buier, dated 2 Feb. 1946.

5. Information on Personnel

No additional personnel will be required.

6. Cost of Alterations and Improvements

No expenditures for alterations or improvements other than routine repair of targets are contemplated.

7. Information on Office Space

Not applicable.

Property (c) Land (852.6 acres m/l), Sheep Pond area, so-called, located on Nantucket Island, Massachusetts

1. Description of Premises required by General Order No. 1

Several parcels of land aggregating 852.6 acres in area located in the Town of Nantucket, Nantucket County, Massachusetts.

2. Justification for Renewal

This area is being used for a rocket projectile target area. Its continued use is vital to the Fleet aircraft gunnery training program in this Command.

3. Present Use of Property.

Rocket projectile target area.

4. Existing Lease Number, etc.

Condemned leasehold interest obtained by Massachusetts Miscellaneous Civil Suit No. 6973.

5. Information on Personnel

No additional personnel will be required.

RA124/L4-3/ML-13  
(80-B4)hn

5 JUN 1945

Request for Action to obtain and Extend Certain Leasehold Interests  
Subj: Voluntary and Condemned for the Fiscal Year 1946

-----  
6. Cost of Alterations and Improvements

No expenditures for alterations and improvements other than routine repair of targets are contemplated.

7. Information on Office Space

Not applicable.

✓ Property (d) Land (115.1 Acres) known as Great Neck in Mashpee, Barnstable County, Massachusetts

1. Description of Premises Required by General Order No. 1:

Two parcels of land aggregating 115.1 acres in area located in the Town of Mashpee, Barnstable County, Massachusetts.

2. Justification for Renewal

This area is presently in use as a dive and glide bombing target. Its continued use is vital to the carrier aircraft gunnery training program in this Command.

3. Present Use of Property

Dive and glide bombing target area.

4. Existing Lease Number, etc.

Condemned leasehold interest obtained by Mass. Miscellaneous Civil Suit No. 7024. Leasehold interest for the Fiscal Year 1946 was requested by this Command in H&S, Wonsset Point Sanda Shore Requisition MA43-2049.

5. Information on Personnel

No additional personnel will be required.

6. Cost of Alterations and Improvements

No expenditures are contemplated other than what is required for routine maintenance of targets.

7. Information on Office Space

Not applicable.

WAL24/MA-3/MA-13  
(80-MA)hn

5 JUN 1945

Subj: Request for Action to Obtain and Extend Certain Leasehold Interests  
Voluntary and Condemned for the Fiscal Year 1946

-----  
Property (e) Land (16.7 acres) called Tisbury Great Pond Area, located in the  
Island of Martha's Vineyard, Mass.

1. Description of Premises required by General Order No. 128

Two parcels of land aggregating 16.7 acres in area  
located adjacent Tisbury Great Pond, Town of West Tisbury and Chilmark, Dukes  
County, Massachusetts.

2. Justification for Renewal

This area is being used for bombing targets. Its  
continued use is vital to the carrier aircraft gunnery training program in this  
Command.

3. Present Use of Property

This area is being used for a land minimum altitude must  
head bombing target site.

4. Existing Lease Number, etc.

Condemned leasehold interest obtained by Massachusetts  
Miscellaneous Civil Suit No. 6796. Extension of the term of this suit to 30 June  
1946 requested by COMNAF, LND ltr to BUAer, dated 2 Feb. 1945.

5. Information on Personnel

No additional personnel will be required.

6. Cost of Alterations and Improvements

No expenditures are contemplated other than required  
for routine maintenance of targets.

7. Information on Office Space

Not applicable.

Property (f) Land (40.2 acres) located at Barn and Sassafraz Island, Conn.

1. Description of Premises required by General Order No. 128

Two parcels of land; one being of 30.2 acres and one of  
5.0 acres located on Barn and Sassafraz Island, Town of Stonington, New London  
County, Connecticut.

NA124/14-3/NI-13  
(80-E4)hn

8 JUN 1946

Request for Action to obtain and Extend Certain Leasehold Interests  
Subj: Voluntary and Condemned for the Fiscal Year 1946

-----

2. Justification for Renewal

The use of this area for a bombing target is vital to the carrier aircraft gunnery training program in this Command.

3. Present Use of Property

Uninhabited woodland.

4. Existing Lease Number, etc.

Leases for property are in process. Owners are Mrs. Ida M. Barber and Burdick Barber.

5. Information on Personnel

No additional personnel will be required.

6. Cost of Alterations and Improvements

No expenditures required other than for routine maintenance of targets.

7. Information on Office Space

Not applicable.

Property (g) Land (5.6 Acres) located at Sandy Neck, so-called in Barnstable County, Mass.

1. Description of Premises required by General Order No. 13

A parcel of land of 5.6 acres in area belonging to Mr. William A. Henderson and located at Sandy Neck, Town of Barnstable, Barnstable County, Massachusetts.

2. Justification for Renewal or Use

Use of this area for a bombing target site is vital to the carrier aircraft gunnery training program in this Command.

3. Present Use of Property

Uninhabited woodland.

NA124/L4-3/R1-13  
(80-E4)hn

5 JUN 1945

JUN 1945

Subj: Request for Action to obtain and Extend Certain Leasehold Interests  
Voluntary and Condemned for the Fiscal Year 1946

4. Existing Leasehold Number, etc.

Lease in process - request for leasehold interest  
for Fiscal Year 1946 was made by this Command on SANDA 1946 Shore Requisition  
NA43-2046.

5. Information on Personnel

No additional personnel will be required.

6. Cost of Alterations and Improvements

No expenditures are required other than for routine  
maintenance of targets.

7. Information on Office Space

Not applicable.

3. The continued use of all of the target areas listed herein is necessary to  
provide the required gunnery training. Relinquishment of any of these properties  
will result in the remaining targets being over crowded and will by direct  
proportion increase operational hazards of aircraft during bombing practice.  
Accordingly, it is requested that the Commandant certify the use of these pro-  
perties and that BuDocks take the necessary action to obtain new leases or  
renewal and extension of leasehold interests as required for the period of the  
Fiscal Year 1946.

4. Recommendations requested in reference (c) concerning the acquisition of  
Billingsgate Island southwesterly of Wallfleet Harbor, and of a 1.35 acres  
parcel of land adjacent the Rocket Range at South Beach, Martha's Vineyard, Mass.  
will be forwarded by separate correspondence.

By direction of Comdr., NAB, FIRST ND:

P.M. JEFFORDS

CC: BuAer  
RCNY ✓

BuY&D  
ND1/ML-13  
C-22-7-MA  
F-5-3/JEC/pb

THE SECRETARY OF THE NAVY  
Washington

22 April 1946

The Honorable  
The Attorney General

Sir:

In accordance with the request of the Secretary of the Navy of January 18, 1945, there was instituted, pursuant to the Acts of Congress approved March 27, 1942 (Public Law 507, 77th Congress), as amended by the Act of Congress approved December 20, 1944 (Public Law 509, 78th Congress), and June 22, 1944 (Public Law 347, 78th Congress), a condemnation proceeding entitled United States v. 115.1 acres of land in Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, et al., Misc. Civil No. 7024, to be used for a practice bombing target site in connection with the Naval Air Station, Quonset Point, Rhode Island.

There is enclosed for filing in this proceeding Declaration of Taking No. 2, for the term beginning July 1, 1945 and ending April 1, 1946.

Very truly yours,

W. John Kenney  
Acting Secretary of the Navy

Encls.

1. D.T. No. 2
2. Check

CC: Com1            BuAer            Comdr.NAS, Quonset Point  
Prepared by  
J.E.COCHPANE  
BuY&D

115.1 ACRES, MORE OR LESS, LOCATED IN  
WASHPEE, BARNSTABLE COUNTY, MASSACHUSETTS

All that land lying and being situate in the  
Town of Washpee, Barnstable County, Massachusetts,  
more particularly described as follows:

PARCEL 1 - Realty Operators Corporation 114.1 Acres

Beginning at a point on the high water mark of  
Nantucket Sound, 2950 feet west of the south-  
east corner of beach land formerly of John Jones  
et al; said distance being measured along the  
high water mark of Nantucket Sound; thence  
easterly along the high water mark of Nantucket  
Sound 2950 feet, more or less, to the southeast  
corner of said beach lands; thence northerly  
along the east line of said beach lands  
formerly of John Jones, et al, and the north-  
erly prolongation thereof 1500 feet, more or  
less, to a point; thence northwesterly 1150  
feet, more or less, to a point at the north-  
easterly end of the salt meadow; thence  
southwesterly along the edge of said salt  
meadow 2000 feet, more or less, to a point,  
due north of the point of beginning; thence  
due south 1540 feet, more or less, to the  
point of beginning.

EXCEPTING THEREFROM that one acre tract within  
the above described boundaries belonging to Frederick  
D. Jonas, designated as parcel 2.

PARCEL 2 - Frederick D. Jonas

1 Acre

One acre of land lying within the boundaries  
hereinbefore described as Parcel 1, as delineated  
on the map hereinafter referred to.

CONTAINING in both the above described parcels, 115.1  
acres, more or less, as delineated on that certain plat  
entitled "Sketch of lands at Great Neck, Town of Washpee,  
Barnstable County, Massachusetts" dated December 30, 1944.

Exhibit "A"



COPY:ec

N1-13/A5-1-NA43  
wft/mh

U.S. NAVAL AIR STATION  
QUONSET POINT, R.I.

4 November 1944

MEMORANDUM

To: Lt. (jg) John R. nz, Representing BuDocks Regional  
Real Estate Office, New York.

Subj: Bombing Target Areas, Earliest date that Navy  
Entered or used same.

1., The Navy entered the target areas listed below on  
the dates indicated for the purpose of constructing targets:

- a. Napatree Point, Watch Hill, Rhode Island  
Area 48.9 acres plus or minus Entered 11 May 44
- ✓ b. Great Neck, Mashpee, Mass.  
Area 115.1 acres plus or minus Entered 19 May 44
- c. Little Neck, Chappaquiddick, Martha's  
Vineyard, Mass.  
Area 58.5 acres plus or minus Entered 26 June 44
- d. Cape Poge Beach, Chappaquiddick Island,  
Martha's Vineyard, Mass.  
Area 82.9 acres plus or minus Entered 26 June 44

2. None of the targets have been used for actual bombing  
practice to date.

H.W. JOHNSON  
Public Works Officer

cc: w.f. tueting

SMCAC-ESL

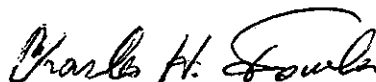
21 Sep 94

MEMORANDUM FOR COMMANDER, Pensacola Naval Air Station, Attn:  
Library Researcher, Mrs. Valerie McCann, Pensacola, FL 32508

SUBJECT: Request for Records Search

1. Request a records search be conducted for any information related to practice bombing missions flown from Quonset Naval Air Station Rhode Island to Mashpee Target Range, Mashpee Target Area, or Great Neck Target Range, all names for the same target area. It is believed that Corsairs began dropping practice bombs possibly as early as Jan 1945 and that training ended there no later than 1950, but even more likely shortly after WW II.
2. Any specific information as to types of bombs, other types of planes, and exact target or targets would be greatly appreciated.
3. Deadline for this Archives Search Report for the Rock Island Corp of Engineers is 30 Sep 94. Hence, it is requested that response be as soon as possible. A negative response is also requested should your search reveal no records on hand.
4. Point of contact is the undersigned, DSN 585-8864 or Coml. (815) 273-8864.

FOR THE DIRECTOR

  
Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

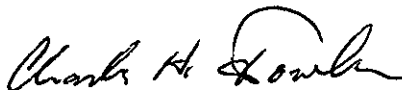
SMCAC-ESL

RECORD OF PHONE CONVERSATION

Time: 1510

Date: 23 Sep 94

On this day, I was contacted by Mr. Ken Snyder of the Naval Aviation Museum. Mr. Snyder said no information existed on Quonset Naval Air Station. He recommended several other places to check. Those recommendations had already been checked out, however, and found to have no information.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX G

REAL ESTATE DOCUMENTS

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX G

REAL ESTATE DOCUMENTS

TABLE OF CONTENTS

G-1 Petition For Condemnation, United States of America, Petitioner, v. 115.1 Acres of land, More or less, in Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, Et Al., Defendants. Misc. Civil No. 7024, dated 25 January 1945 (reference B-20).

G-2 Amended Petition For Condemnation, United States of America, Petitioner, v. 115.1 Acres of Land, More or Less, In Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, Et Al., Defendants. Misc. Civil No. 7024, dated 20 June 1945 (reference B-21).

G-3 Motion to Further Amend Petition For Condemnation, United States of America, Petitioner, v. 115.1 Acres of Land, More or Less, In Mashpee, Barnstable County, Commonwealth of Massachusetts, Realty Operators Corporation, ET Al., Defendants. Misc. Civil No. 7024, dated 8 April 1946 (reference B-22).

G-4 Petition For Condemnation, United States of America, Petitioner, v. 229 Acre of Land, More or Less, Situate [sic] in The Town of Mashpee, County of Barnstable, Commonwealth of Massachusetts, and Realty Operators Corporation, Et Al., Defendants. Misc. Civil No. 7359, dated 23 March 1948 (reference B-23).

G-5 Further Amended Petition for Condemnation Filed May 23, 1950, United States of America, Petitioner, v. 229 Acres of Land, More or Less, Situate [sic] in the Town of Mashpee, County of Barnstable, Commonwealth of Massachusetts, and Realty Operators Corporation, Et Al., Defendants. Misc. Civil No. 7359 dated 22 May 1950 (reference B-24).

G-6 Order of Taking South Cape Beach Mashpee, Corinna Tobey or Heirs Chester A. Wright, Jr., Ada Jonas, Rosanna Jonas or Heirs, E. Winthrop Hall or Heirs New Seabury Corporation Owners Unknown to Commonwealth of Massachusetts, Dept. of Environmental Management, dated 14 December 1982, (reference B-25).

IN THE DISTRICT COURT OF THE UNITED STATES  
FOR THE DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,  
Petitioner,

v.

115.1 ACRES OF LAND, MOREOR  
LESS, IN MASHPEE, BARNSTABLE  
COUNTY, COMMONWEALTH OF MASSA-  
CHUSETTS, REALTY OPERATORS  
CORPORATION, ET AL.,  
Defendants.

7024  
MISC. CIVIL NO. 7024

PETITION FOR CONDEMNATION

Comes now the United States of America, represented  
herein by Edmund J. Brandon, United States Attorney in and  
for the District of Massachusetts, and Philip P. A. O'Connell,  
Special Assistant to the United States Attorney in and for  
the said District, acting under instructions of the Attorney  
General of the United States and at the request of the Secretary  
of the Navy of the United States  
and respectfully represents to the Court as follows:

(1) That by and pursuant to the Act of Congress  
approved February 26, 1931, 46 Stat. 1221, 46 U.S.C. Sec. 258,  
~~March 27, 1942 (Public Law 507 - 77th Congress)~~, as amended by  
the Act of Congress approved December 20, 1944 (Public Law 509,  
78th Congress), and the Act of Congress approved June 22, 1944 (Public  
Law 347, 78th Congress),

and all other Acts or parts of Acts amendatory thereof or sup-

otherwise, such tracts or parcels of land in the Town of Mashpee,  
County of Barnstable,  
Commonwealth of Massachusetts, as may be necessary in his  
discretion to provide for a practice bombing target site in  
connection with the Naval Air Station;

(2) That this proceeding is instituted by direction  
of the Attorney General of the United States at the request  
of the Secretary of the Navy

of the United States as shown by letter dated January 18, 1945,  
to the Attorney General from the Secretary of the Navy of the  
United States,  
a certified copy of which is filed in this proceeding with  
this petition;

(3) That the interest to be acquired is a term for year  
ending June 30, 1945;

(4) That for use in connection with the aforesaid  
purposes, the Secretary of the Navy of the United States  
has determined it is necessary and advantageous to the United

by condemnation, under judicial process, and all preliminary and administrative steps required by law have been taken.

(5) The lands or interests therein sought to be condemned are shown on a plan entitled "Sketch of Lands at Great Neck, Town of Mashpee, Barnstable County, Massachusetts" dated December 30, 1944, and marked Exhibit "B" ~~attached to Declaration of Taking herewith filed~~ and more particularly described in <sup>both of which are</sup> Exhibit "A" / attached hereto and made a part hereof;

(6) That according to the land records of the County of Barnstable, and other evidence presently available to your petitioner, it appears that title to the lands herein-after described, together with all improvements thereon, is now vested in Realty Operators Corporation, c/o Mr. Fred P. Abbott, Manager, Box 86, Waquoit, Massachusetts; and F. D. Jonas, Mashpee, Massachusetts;

(7) That in addition to the persons named, there are or may be other persons, firms or corporations, whose names are unknown to petitioner who may have or who may claim to have some interest in the property hereinafter described or who may claim to be entitled to compensation with respect to the taking thereof, and petitioner, therefore, makes parties defendant hereto all persons, firms and corporations, known and unknown, who have, or who may claim to have any right, title, interest or estate in, or lien, encumbrance, servitude, easement, demand or claim on or in respect of the hereinafter described premises;

(8) The attorneys for the petitioner herein further respectfully represent that certain and adequate provision has been made for the payment of just compensation to the party or parties entitled thereto; funds for such purposes having been appropriated by Act of Congress;

Form 1(a)

(7) The attorneys for the petitioner herein further respectfully represent to the Court that the Secretary of the <sup>N</sup>avy of the United States

has determined that it is necessary to take immediate possession of certain real property herein described; that under the provisions of the Act of Congress approved March 27, 1942 (Public Law 507 - 77th Congress),

and all other Acts or parts of Acts amendatory thereof or supplementary thereto, the United States of America has the right to take immediate possession of any lands, easements, or rights of way needed for use in connection with the aforesaid purposes duly authorized by Congress to the extent of the interest to be acquired by the United States, and proceed with such public purposes thereon as have been authorized by Congress, PROVIDED, however, that certain and adequate provision shall have been made for the payment of just compensation to the party or parties entitled thereto, either by previous appropriation by the United States or by the deposit of monies or other form of security in such amount and form as shall be approved by the Court in which such proceeding shall be instituted;

that the aforesaid interest in the land described in said Exhibit "A" may be acquired by the United States of America by condemnation, the petitioner prays this Honorable Court:

1. To cite the owners and other persons interested in the lands described in this petition and the parcels, lots and portions of lots constituting the same, to appear in this Court at a time to be fixed by the Court to answer this petition;

2. That after such notice shall have been given in such manner and due return thereon made, at such time as the Court may deem proper, a jury in this Court having been impaneled and sworn for that purpose, may make, ascertain and by their verdicts return into Court, after this Honorable Court shall have given to each and all parties interested due opportunity to be heard, a faithful and impartial appraisement and valuation of the said lands and of all rights, title and interests therein, including all lawful damages sustained by the owners thereof, and all other persons, corporations, or associations or parties having any lawful rights or interests in said lands, estimating the same as an entire estate and as if all lawful damages accruing to the owners and other persons interested therein by reason of the condemnation thereof to the uses of the United States, were the sole property of the owner in fee simple, and that said jury may by their verdicts faithfully, impartially and truly apportion said damages so estimated as aforesaid to and among all persons, corporations, associations or parties, whom they find to be entitled thereto in proportion to the value of their several rights or interests as determined by said jury as aforesaid, and that such verdict so made and found may be accepted and recorded by this Honorable Court;

3. To take such action and pass such orders, decrees and judgments as may be necessary or proper fully to effect the objects for which the aforesaid Acts of Congress insofar as they relate to the acquisition of lands in the Commonwealth of

in the lands described in said Schedule "A" to be condemned and taken by the United States of America to vest in the United States of America; and

4. To take such action and pass such orders providing, authorizing and directing the United States of America, the petitioner herein, to take immediate possession of each and all of the lands and various interests therein, hereinafter described.

5. To grant such other and further relief as the nature of the case may require.

THE UNITED STATES OF AMERICA

EDMUND J. BRANDON  
United States Attorney

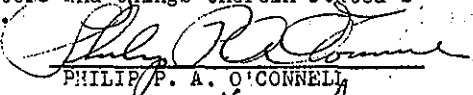
By: 

PHILIP P. A. O'CONNELL  
Special Assistant to the  
United States Attorney

CERTIFICATION

STATE OF MASSACHUSETTS:  
COUNTY OF SUFFOLK :

I, Philip P. A. O'Connell, Special Assistant to the United States Attorney in and for the District of Massachusetts, on oath depose and say that I have read the foregoing and annexed petition by me subscribed and know the contents thereof, and that the matters and things therein stated I verily believe to be true.

  
PHILIP P. A. O'CONNELL

Subscribed and sworn to before me this 25th day of January, 1945.  
My Commission expires:

July 5 - 1945

  
Notary Public

EXHIBIT "A"

115.1 ACRES, MORE OR LESS, LOCATED IN  
MASHPEE, BARNSTABLE COUNTY, MASSACHUSETTS.

All of that land lying and being situate in the Town of  
Mashpee, Barnstable County, Massachusetts, more particularly  
described as follows:

PARCEL 1 - Realty Operators Corporation

114.1 Acres

Beginning at a point on the high water mark of Nantucket Sound, 2950 feet west of the southeast corner of beach land formerly of John Jones et al; said distance being measured along the high water mark of Nantucket Sound; thence easterly along the high water mark of Nantucket Sound, 2950 feet, more or less, to the southeast corner of said beach lands; thence northerly along the east line of said beach lands formerly of John Jones, et al and the northerly prolongation thereof, 1500 feet, more or less, to a point; thence northwesterly 1150 feet, more or less, to a point at the northeasterly end of the salt meadow; thence southwesterly along the edge of said salt meadow 2000 feet, more or less, to a point, due north of the point of beginning; thence due south, 1540 feet, more or less, to the point of beginning.

EXCEPTING THEREFROM that one acre tract within the above described boundaries belonging to Frederick D. Jonas, designated as Parcel 2.

PARCEL 2 - Frederick D. Jonas

1 Acre

One acre of land lying within the boundaries hereinbefore described as Parcel 1, as indicated on the map hereinafter referred to.

Containing in both the above described parcels, 115.1 acres, more or less, as delineated on that certain plat entitled "Sketch of lands at Great Neck, Town of Mashpee, Barnstable County, Massachusetts" dated December 30, 1944.

FOR THE DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,  
Petitioner,

V.

115.1 ACRES OF LAND, MORE OR  
LESS, IN MASHPEE, BARNSTABLE  
COUNTY, COMMONWEALTH OF MASSA-  
CHUSETTS, REALTY OPERATORS  
CORPORATION, ET AL.,  
Defendants.

MISC. CIVIL NO. 7024

AMENDED PETITION FOR CONDEMNATION

Comes now the United States of America, represented  
herein by Edmund J. Brandon, United States Attorney in and  
for the District of Massachusetts, and Philip P. A. O'Connell,  
Special Assistant to the United States Attorney in and for  
the said District, acting under instructions of the Attorney  
General of the United States and at the request of the Secretary  
of the Navy of the United States  
and respectfully represents to the Court as follows:

(1) That by and pursuant to the Act of Congress  
approved ~~February 26, 1931 (46 Stat. 1421, 40 U.S.C. Sec.  
258)~~ March 27, 1942 (Public Law 507 - 77th Congress), as amended by  
the Act of Congress approved December 20, 1944 (Public Law 509, 78th  
Congress), and the Act of Congress approved June 22, 1944 (Public Law  
347, 78th Congress),

and all other Acts or parts of Acts amendatory thereof or sup-  
plementary thereto, the Secretary of the Navy of the United States

otherwise, such tracts or parcels of land in the Town of Mashpee,  
County of Barnstable,  
Commonwealth of Massachusetts, as may be necessary in his  
discretion to provide for a practice bombing target site in connection  
with the Naval Air Station;

(2) That this proceeding is instituted by direction  
of the Attorney General of the United States at the request  
of the Secretary of the Navy,

of the United States as shown by letter dated January 18, 1945,  
to the Attorney General from the Secretary of the Navy of the  
United States  
a certified copy of which is filed in this proceeding with  
this petition;

(3) That the interest to be acquired is a term for years  
ending June 30, 1946;

(4) That for use in connection with the aforesaid  
purposes, the Secretary of the Navy of the United States

has determined it is necessary and advantageous to the United

by condemnation, under judicial process, and all preliminary and administrative steps required by law have been taken.

(5) The lands or interests therein sought to be condemned are shown on a plan entitled "Sketch of Lands at Great Neck, Town of Mashpee, Barnstable County, Massachusetts"

dated December 30, 1944, and marked Exhibit "B" attached to original Petition for Condemnation ~~and attached to Record of Decision of Taking herewith filed~~, and more particularly described in Exhibit "A" attached hereto and made a part hereof;

(6) That according to the land records of the County of Barnstable and other evidence presently available to your petitioner, it appears that title to the lands herein-after described, together with all improvements thereon, is now vested in Realty Operators Corporation, c/o Mr. Fred P. Abbott, Manager, Box 86, Waquoit, Massachusetts; and F. D. Jonas, Mashpee, Massachusetts;

(7) That in addition to the persons named, there are or may be other persons, firms or corporations, whose names are unknown to petitioner who may have or who may claim to have some interest in the property hereinafter described or who may claim to be entitled to compensation with respect to the taking thereof, and petitioner, therefore, makes parties defendant hereto all persons, firms and corporations, known and unknown, who have, or who may claim to have any right, title, interest or estate in, or lien, encumbrance, servitude, easement, demand or claim on or in respect of the hereinafter described premises;

(8) The attorneys for the petitioner herein further respectfully represent that certain and adequate provision has been made for the payment of just compensation to the party or parties entitled thereto; funds for such purposes having been appropriated by Act of Congress;

Form 1(a)

(9) The attorneys for the petitioner herein further respectfully represent to the Court that the Secretary of the Navy of the United States

has determined that it is necessary to take immediate possession of certain real property herein described; that under the provisions of the Act of Congress approved March 27, 1942 (Public Law 507 - 77th Congress),

and all other Acts or parts of Acts amendatory thereof or supplementary thereto, the United States of America has the right to take immediate possession of any lands, easements, or rights of way needed for use in connection with the aforesaid purposes duly authorized by Congress to the extent of the interest to be acquired by the United States, and proceed with such public purposes thereon as have been authorized by Congress, PROVIDED, however, that certain and adequate provision shall have been made for the payment of just compensation to the party or parties entitled thereto, either by previous appropriation by the United States or by the deposit of monies or other form of security in such amount and form as shall be approved by the Court in which such proceeding shall be instituted;

that the aforesaid interest in the land described in said

Exhibit "A" may be acquired by the United States of America by condemnation, the petitioner prays this Honorable Court:

1. To cite the owners and other persons interested in the lands described in this petition and the parcels, lots and portions of lots constituting the same, to appear in this Court at a time to be fixed by the Court to answer this petition;

2. That after such notice shall have been given in such manner and due return thereon made, at such time as the Court may deem proper, a jury in this Court having been impaneled and sworn for that purpose, may make, ascertain and by their verdicts return into Court, after this Honorable Court shall have given to each and all parties interested due opportunity to be heard, a faithful and impartial appraisement and valuation of the said lands and of all rights, title and interests therein, including all lawful damages sustained by the owners thereof, and all other persons, corporations, or associations or parties having any lawful rights or interests in said lands, estimating the same as an entire estate and as if all lawful damages accruing to the owners and other persons interested therein by reason of the condemnation thereof to the uses of the United States, were the sole property of the owner in fee simple, and that said jury may by their verdicts faithfully, impartially and truly apportion said damages so estimated as aforesaid to and among all persons, corporations, associations or parties, whom they find to be entitled thereto in proportion to the value of their several rights or interests as determined by said jury as aforesaid, and that such verdict so made and found may be accepted and recorded by this Honorable Court;

3. To take such action and pass such orders, decrees and judgments as may be necessary or proper fully to effect the objects for which the aforesaid Acts of Congress insofar as they relate to the acquisition of lands in the Commonwealth of

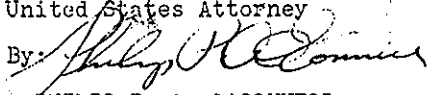
in the lands described in said ~~XXXXXXXXXX~~ as to be condemned and taken by the United States of America to vest in the United States of America; and

4. To take such action and pass such orders providing, authorizing and directing the United States of America, the petitioner herein, to take immediate possession of each and all of the lands and various interests therein, hereinafter described.

5. To grant such other and further relief as the nature of the case may require.

THE UNITED STATES OF AMERICA

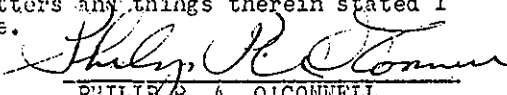
EDMUND J. BRANDON  
United States Attorney

By:   
PHILIP P. A. O'CONNELL  
Special Assistant to the  
United States Attorney

CERTIFICATION

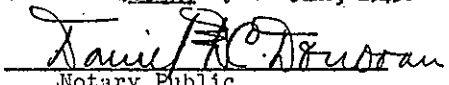
STATE OF MASSACHUSETTS:  
COUNTY OF SUFFOLK :

I, Philip P. A. O'Connell, Special Assistant to the United States Attorney in and for the District of Massachusetts, on oath depose and say that I have read the foregoing and annexed petition by me subscribed and know the contents thereof, and that the matters and things therein stated I verily believe to be true.

  
PHILIP P. A. O'CONNELL

Subscribed and sworn to before me this 20th day of June, 1945.  
My Commission expires:

July 8 - 1945.

  
Notary Public

115.1 ACRES, MORE OR LESS, LOCATED IN  
MASHPEE, BARNSTABLE COUNTY, MASSACHUSETTS.

All of that land lying and being situate in the Town of  
Mashpee, Barnstable County, Massachusetts, more particularly  
described as follows:

PARCEL 1 - Realty Operators Corporation 114.1 Acres

Beginning at a point on the high water mark of Nantucket  
Sound, 2950 feet west of the southeast corner of beach  
land formerly of John Jones et al; said distance being  
measured along the high water mark of Nantucket Sound;  
thence easterly along the high water mark of Nantucket  
Sound, 2950 feet, more or less, to the southeast corner  
of said beach lands; thence northerly along the east  
line of said beach lands formerly of John Jones, et al  
and the northerly prolongation thereof, 1500 feet, more  
or less, to a point; thence northwesterly 1150 feet,  
more or less, to a point at the northeasterly end of the  
salt meadow; thence southwesterly along the edge of said  
salt meadow 2000 feet, more or less, to a point, due north  
of the point of beginning; thence due south, 1540 feet,  
more or less, to the point of beginning.

EXCEPTING THEREFROM that one acre tract within the  
above described boundaries belonging to Frederick D. Jonas,  
designated as Parcel 2.

PARCEL 2 - Frederick D. Jonas 1 Acre

One acre of land lying within the boundaries hereinbefore  
described as Parcel 1, as indicated on the map hereinafter  
referred to.

Containing in both the above described parcels, 115.1  
acres, more or less, as delineated on that certain plan  
entitled "Sketch of lands at Great Neck, Town of Mashpee,  
Barnstable County, Massachusetts" dated December 30, 1944.

Exhibit "A"

IN THE DISTRICT COURT OF THE UNITED STATES  
FOR THE DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,  
Petitioner,

v.

115.1 ACRES OF LAND, MORE OR  
LESS, IN MASHPEE, BARNSTABLE  
COUNTY, COMMONWEALTH OF MASSA-  
CHUSETTS, REALTY OPERATORS  
CORPORATION, ET AL.,  
Defendants.

MISC. CIVIL NO. 7024

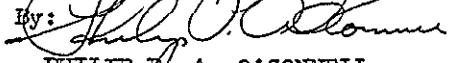
MOTION TO FURTHER AMEND PETITION FOR CONDEMNATION

Now comes the United States of America, represented herein by Edmund J. Brandon, United States Attorney for the District of Massachusetts, and Philip P. A. O'Connell, Special Assistant to the United States Attorney for the said District, and moves this Honorable Court to amend the Amended Petition for Condemnation by striking therefrom Section (3) thereof and inserting in lieu thereof the following Section (3):

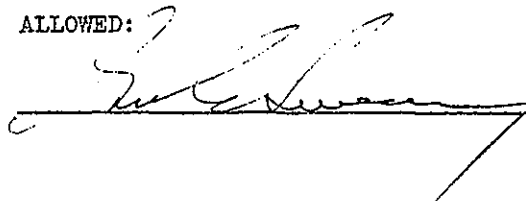
"(3) That the interest to be acquired is a term  
for years ending April 1, 1946;"

THE UNITED STATES OF AMERICA

EDMUND J. BRANDON  
United States Attorney

By:   
PHILIP P. A. O'CONNELL  
Special Assistant to the  
United States Attorney

ALLOWED:

 J.

ending  
G

IN THE DISTRICT COURT OF THE UNITED STATES  
FOR THE DISTRICT OF MASSACHUSETTS

United States of America,  
Petitioner

v.

MISC. CIVIL NO. 7024

115.1 acres of land, more or  
less, in Mashpee, Barnstable  
County, Commonwealth of  
Massachusetts, Realty Operators  
Corporation, et al.,

Defendants

DECLARATION OF TAKING NO. 2.

WHEREAS, pursuant to the Acts of Congress approved March 27, 1942 (Public Law 507, 77th Congress), as amended by the Act of Congress approved December 20, 1944 (Public Law 509, 78th Congress), and June 22, 1944 (Public Law 347, 78th Congress), the above styled condemnation proceeding has been instituted.

WHEREAS, the condemnation proceeding has been amended so as to acquire a further term for years from July 1, 1945 to April 1, 1946.

NOW, THEREFORE, pursuant to the provisions of the Act of Congress approved February 26, 1931 (46 Stat. 1421), I,

Secretary of the Navy, do hereby make and cause to be filed this Declaration of Taking No. 2, and by virtue of authority thereof do hereby state that the lands selected for acquisition aggregate 115.1 acres, more or less, in Barnstable County, Massachusetts, which said lands are shown on a map entitled "Sketch of lands at Great Neck, Town of Mashpee, Barnstable County, Massachusetts," attached to Declaration of Taking No. 1 as Exhibit "B" and made a part thereof. The lands are more particularly described in Exhibit "A" attached to Declaration of Taking No. 1 and made a part thereof.

And I do declare said lands to be taken under the authority of the aforesaid acts of Congress; that the use to which said lands are to be put is for a practice bombing target site in connection with the Naval Air Station, Quonset Point, Rhode Island, as authorized by said acts; and that the estate hereby taken in said lands for the public use aforesaid is a term for years beginning July 1, 1945 and ending April 1, 1946.

And I do hereby state that the sum of money estimated by me to be just compensation for the estate hereby taken is Three Hundred Dollars and Ninety-five Cents (\$300.95), which said sum is hereby deposited into the registry of the court for the use and benefit of the persons entitled thereto, and that the names of the owners of said lands which are hereby taken are shown on Schedule "A" which is attached hereto and made a part of this Declaration of Taking No. 2.

I am of the opinion that the ultimate award for the taking of said lands will be within the limits prescribed by Congress.

IN WITNESS WHEREOF, the petitioner, by and through the Secretary of the Navy, has caused this Declaration of Taking No. 2 to be signed on the 8th day of April, 1946, in the City of Washington, District of Columbia.

UNITED STATES OF AMERICA

By W. J. Kenney  
Acting Secretary of the Navy

# SCHEDULE "A"

The names and addresses of the persons having title to or other interests in the lands described in the within Declaration of Taking No. 2, and the amounts estimated to be fair compensation for each respective ownership, including all improvements thereon, are as follows:

Name and Address	Parcel No.	Acres	Estimated Fair Compensation
Realty Operators Corp., C/o Fred F. Abbott, Manager, Box 86 Waquoit, Mass.	1	114.1	\$ 299.95 based upon \$400.00 per annum
F. D. Jones Mashpee, Mass.	2	1.	1.00
TOTAL -		115.1	\$ 300.95

FOR THE DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,  
Petitioner,

V.

229 ACRES OF LAND, MORE OR LESS,  
SITUATE IN THE TOWN OF MASHPEE,  
COUNTY OF BARNSTABLE, COMMONWEALTH  
OF MASSACHUSETTS, AND REALTY  
OPERATORS CORPORATION, ET AL.,  
Defendants.

MISC. CIVIL NO. 7359

PETITION FOR CONDEMNATION

Comes now the United States of America, represented  
William T. McCarthy  
herein by ~~Edmund L. Brandon~~, United States Attorney in and  
for the District of Massachusetts, and Philip P. A. O'Connell,  
Special Assistant to the United States Attorney in and for  
the said District, acting under instructions of the Attorney  
General of the United States and at the request of the  
Secretary of the Navy of the United States,  
and respectfully represents to the Court as follows:

(1) That by and pursuant to the Act of Congress  
approved ~~February 26, 1931 (46 Stat. 1421, 49 U.S.C. Sec.~~  
~~2582)~~ July 18, 1947 (Public Law 202, 80th Congress) and the Act of  
Congress approved August 1, 1938 (25 Stat. 357, U.S.C., Title 40, Sec.  
257),

and all other Acts or parts of Acts amendatory thereof or sup-

is authorized to acquire by purchase, condemnation or otherwise, such tracts or parcels of land in the Town of Mashpee, Barnstable County, Commonwealth of Massachusetts, as may be necessary in his discretion to provide for a practice bombing Target Site;

(2) That this proceeding is instituted by direction of the Attorney General of the United States at the request of the Secretary of the Navy

of the United States as shown by letter dated March 12, 1948, to the Attorney General from the Acting Secretary of the Navy,

a certified copy of which is filed in this proceeding with this petition;

(3) That the interest to be acquired is a term for years ending June 30, 1949;

(4) That for use in connection with the aforesaid purposes, the Secretary of the Navy

by condemnation, under judicial process, and all preliminary and administrative steps required by law have been taken.

(5) The lands or interests therein sought to be condemned are shown on a plan entitled, "Naval Air Station, Quonset Point, R.I., Great Neck, Target Area #2, Town of Mashpee, Barnstable County, Massachusetts, dated August 16, 1946, and marked Exhibit "B" attached ~~to Declaration of Taking~~ herewith ~~filed~~, and more particularly described in Exhibit "A" attached hereto and made a part hereof;

(6) That according to the land records of the County of Barnstable, and other evidence presently available to your petitioner, it appears that title to the lands herein-after described, together with all improvements thereon, is now vested in Realty Operators Corporation and Frederick D. Jonas;

(7) That in addition to the persons named, there are or may be other persons, firms or corporations, whose names are unknown to petitioner who may have or who may claim to have some interest in the property hereinafter described or who may claim to be entitled to compensation with respect to the taking thereof, and petitioner, therefore, makes parties defendant hereto all persons, firms and corporations, known and unknown, who have, or who may claim to have any right, title, interest or estate in, or lien, encumbrance, servitude, easement, demand or claim on or in respect of the hereinafter described premises;

(8) The attorneys for the petitioner herein further respectfully represent that certain and adequate provision has been made for the payment of just compensation to the party or parties entitled thereto; funds for such purposes having been appropriated and are chargeable to #1231502,002, Aviation, Navy, 70484-

that the aforesaid interest in the land described in Exhibit "A" may be acquired by the United States of America by condemnation, the petitioner prays this Honorable Court:

1. To cite the owners and other persons interested in the lands described in this petition and the parcels, lots and portions of lots constituting the same, to appear in this Court at a time to be fixed by the Court to answer this petition;
2. That after such notice shall have been given in such manner and due return thereon made, at such time as the Court may deem proper, a jury in this Court having been impaneled and sworn for that purpose, may make, ascertain and by their verdicts return into Court, after this Honorable Court shall have given to each and all parties interested due opportunity to be heard, a faithful and impartial appraisement and valuation of the said lands and of all rights, title and interests therein, including all lawful damages sustained by the owners thereof, and all other persons, corporations, or associations or parties having any lawful rights or interests in said lands, estimating the same as an entire estate and as if all lawful damages accruing to the owners and other persons interested therein by reason of the condemnation thereof to the uses of the United States, were the sole property of the owner in fee simple, and that said jury may by their verdicts faithfully, impartially and truly apportion said damages so estimated as aforesaid to and among all persons, corporations, associations or parties, whom they find to be entitled thereto in proportion to the value of their several rights or interests as determined by said jury as aforesaid, and that such verdict so made and found may be accepted and recorded by this Honorable Court;

3. To take such action and pass such orders, decrees and judgments as may be necessary or proper fully to effect the objects for which the aforesaid Acts of Congress insofar as they relate to the acquisition of lands in the Commonwealth of

in the lands described in said Schedule "A" to be condemned and taken by the United States of America to vest in the United States of America; and

4. To take such action and pass such orders providing, authorizing and directing the United States of America, the petitioner herein, to take immediate possession of each and all of the lands and various interests therein, hereinafter described.

5. To grant such other and further relief as the nature of the case may require.

THE UNITED STATES OF AMERICA,

WILLIAM T. MCCARTHY  
United States Attorney

By: 

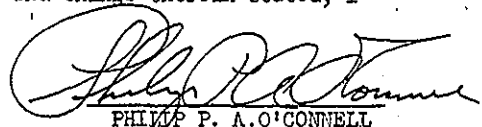
PHILIP P. A. O'CONNELL  
Special Assistant to the  
United States Attorney

CERTIFICATION

STATE OF MASSACHUSETTS:

COUNTY OF SUFFOLK:

I, Philip P. A. O'Connell, Special Assistant to the United States Attorney in and for the District of Massachusetts, on oath depose and say that I have read the foregoing and annexed petition by me subscribed, and know the contents thereof, and that the matters and things therein stated, I verily believe to be true.

  
PHILIP P. A. O'CONNELL

Subscribed and sworn to before me this 23rd day of March, 1948.  
My Commission expires: July 24, 1952.

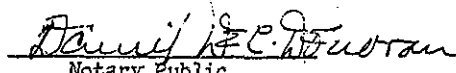
  
Notary Public

EXHIBIT "A"

229 acres of land, more or less, in the TOWN OF WASHPEE,  
Barnstable County, Massachusetts - Target Area No. 2 -  
for Naval Air Station, Quonset Point, Rhode Island.

BEGINNING at a point on the South Beach of Great Neck,  
said point marking the most westerly limit of land belonging to  
Realty Operators Corporation, as certified by Mass. Land Court  
Case #11408, said point marking the easterly limit of land  
formerly of John Jones, et al;

THENCE westerly by the high water mark of Nantucket Sound  
4245 feet, more or less, to land now or formerly of Henry H. Fay;

THENCE northwesterly by said land of Fay 746 feet, more or  
less, to the high water mark of Waquoit Bay;

THENCE northeasterly by the high water mark of Waquoit Bay  
515 feet, more or less, to the outlet from Sedge Lots Pond;

THENCE northerly crossing the mouth of said outlet and by  
the high water mark of Waquoit Bay to the southerly line of a  
25 foot way;

THENCE easterly by the southerly line of said way to upland  
belonging to E. Winthrop Hall and being Lot A-2;

THENCE southerly, easterly and northeasterly by said upland  
of Hall and being Lots A-2 and A-1 to the most easterly point of  
Lot A-1;

THENCE northwesterly by said land of Hall 430 feet to the  
easterly side of a way;

THENCE northerly and northeasterly by said way to land now or  
formerly of William B. Dunning;

THENCE easterly by said land of Dunning to a point at the  
southerly side of a way;

THENCE northeasterly by said way 450 feet, more or less, to  
land now or formerly of Adaline Mills;

THENCE easterly by said land of Mills 1285 feet, more or less,  
to the easterly line of MacGregors Road;

THENCE continuing easterly to the meadowland;

THENCE in a general southerly direction by the various meanders  
of said meadowland to a point which is due north of a point  
500 feet easterly along the high water mark of Nantucket Sound  
from the point of beginning;

THENCE due south to the high water mark of Nantucket Sound;

THENCE westerly by said high water mark 500 feet, more or  
less to the POINT OF BEGINNING.

CONTAINING 229 acres, more or less, of upland, beachland,  
meadow and pond.

INCLUDING all the lands beneath said lily ponds and all lands  
between the mean high water mark and mean low water mark of  
Waquoit Bay, together with the right to pass and repass over any  
and all existing rights of way.

otherwise, such tracts or parcels of land in the Town of Mashpee,  
Barnstable County,

Commonwealth of Massachusetts, as may be necessary in his  
discretion to provide for a practice bombing Target Site;

(2) That this proceeding is instituted by direction  
of the Attorney General of the United States at the request  
of the Secretary of the Navy

of the United States as shown by letter dated March 12, 1948,  
to the Attorney General from the Acting Secretary of the Navy,

a certified copy of which is filed in this proceeding with  
this petition;

(3) That the interest to be acquired is a term for  
years ending June 30, 1951;

(4) That for use in connection with the aforesaid  
purposes, the Secretary of the Navy

has determined it is necessary and advantageous to the United

Form 1

by condemnation, under judicial process, and all preliminary and administrative steps required by law have been taken,

(5) The lands or interests therein sought to be condemned are shown on a plan entitled, "Naval Air Station, Quonset Point, R. I. Great Neck, Target Area #2, Town of Mashpee, Barnstable County, Massachusetts,

dated August 18, 1946, and marked Exhibit "B" attached to Declaration of Taking herewith filed, and more particularly described in Exhibit "A" attached hereto and made a part hereof;

(6) That according to the land records of the County of Barnstable and other evidence presently available to your petitioner, it appears that title to the lands hereinafter described, together with all improvements thereon, is now vested in Realty Operators Corporation and Frederick D. Jonas;

(7) That in addition to the persons named, there are or may be other persons, firms or corporations, whose names are unknown to petitioner who may have or who may claim to have some interest in the property hereinafter described or who may claim to be entitled to compensation with respect to the taking thereof, and petitioner, therefore, makes parties defendant hereto all persons, firms and corporations, known and unknown, who have, or who may claim to have any right, title, interest or estate in, or lien, encumbrance, servitude, easement, demand or claim on or in respect of the hereinafter described premises;

(8) The attorneys for the petitioner herein further respectfully represent that certain and adequate provision has been made for the payment of just compensation to the party or parties entitled thereto; funds for such purposes having been appropriated and are chargeable to "1781502.003 Aviation

WHEREFORE, the premises considered, and to the end that the aforesaid interest in the land described in Exhibit "A" may be acquired by the United States of America by condemnation, the petitioner prays this Honorable Court:

1. To cite the owners and other persons interested in the lands described in this petition and the parcels, lots and portions of lots constituting the same, to appear in this Court at a time to be fixed by the Court to answer this petition;

2. That after such notice shall have been given in such manner and due return thereon made, at such time as the Court may deem proper, a jury in this Court having been impaneled and sworn for that purpose, may make, ascertain and by their verdicts return into Court, after this Honorable Court shall have given to each and all parties interested due opportunity to be heard, a faithful and impartial appraisement and valuation of the said lands and of all rights, title and interests therein, including all lawful damages sustained by the owners thereof, and all other persons, corporations, or associations or parties having any lawful rights or interests in said lands, estimating the same as an entire estate and as if all lawful damages accruing to the owners and other persons interested therein by reason of the condemnation thereof to the uses of the United States, were the sole property of the owner in fee simple, and that said jury may by their verdicts faithfully, impartially and truly apportion said damages so estimated as aforesaid to and among all persons, corporations, associations or parties, whom they find to be entitled thereto, in proportion to the value of their several rights or interests as determined by said jury as aforesaid, and that such verdict so made and found may be accepted and recorded by this Honorable Court;

3. To take such action and pass such orders, decrees and judgments as may be necessary or proper fully to effect the objects for which the aforesaid Acts of Congress insofar as they relate to the acquisition of lands in the Commonwealth of

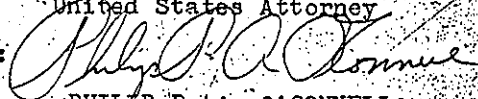
Exhibit  
in the lands described in said ~~Schedule~~ "A" to be condemned  
and taken by the United States of America to vest in the  
United States of America; and

4. To take such action and pass such orders providing, authorizing and directing the United States of America, the petitioner herein, to take immediate possession of each and all of the lands and various interests therein hereinafter described.

5. To grant such other and further relief as the nature of the case may require.

THE UNITED STATES OF AMERICA,  
GEORGE F. GARRITY  
~~ATTORNEY AT LAW~~  
United States Attorney

BY:



PHILIP P. A. O'CONNELL  
Special Assistant to the  
United States Attorney

CERTIFICATION

STATE OF MASSACHUSETTS:

COUNTY OF SUFFOLK:

I, Philip P. A. O'Connell, Special Assistant to the United States Attorney in and for the District of Massachusetts, on oath depose and say that I have read the foregoing and annexed petition by me subscribed, and know the contents thereof, and that the matters and things therein stated, I verily believe to be true.



PHILIP P. A. O'CONNELL

Subscribed and sworn to before me this 22nd day of May 1950  
My commission expires: March 3, 1955

Winifred W. Ward  
Notary Public

EXHIBIT "A"

229 acres of land more or less, in the TOWN OF MASHPEE, Barnstable County, Massachusetts - Target Area No. 2 - for Naval Air Station, Quonset Point, Rhode Island.

BEGINNING at a point on the South Beach of Great Neck said point marking the most westerly limit of land belonging to Realty Operators Corporation, as certified by Mass. Land Court Case #11408, said point marking the easterly limit of land formerly of John Jones, et al;

THENCE westerly by the high water mark of Nantucket Sound 4245 feet, more or less, to land now or formerly of Henry H. Fay;

THENCE northwesterly by said land of Fay 746 feet, more or less, to the high water mark of Waquoit Bay;

THENCE northeasterly by the high water mark of Waquoit Bay 515 feet, more or less, to the outlet from Sedge Lots Pond;

THENCE northerly crossing the mouth of said outlet and by the high water mark of Waquoit Bay to the southerly line of a 25 foot way;

THENCE easterly by the southerly line of said way to upland belonging to E. Winthrop Hall and being Lot A-2;

THENCE southerly, easterly and northeasterly by said upland of Hall and being Lots A-2 and A-1 to the most easterly point of Lot A-1;

THENCE northwesterly by said land of Hall 430 feet to the easterly side of a way;

THENCE northerly and northeasterly by said way to land now or formerly of William B. Dunning;

THENCE easterly by said land of Dunning to a point at the southerly side of a way;

THENCE northeasterly by said way 450 feet, more or less, to land now or formerly of Adaline Mills;

THENCE easterly by said land of Mills 1285 feet, more or less, to the easterly line of MacGregors Road;

THENCE continuing easterly to the meadowland;

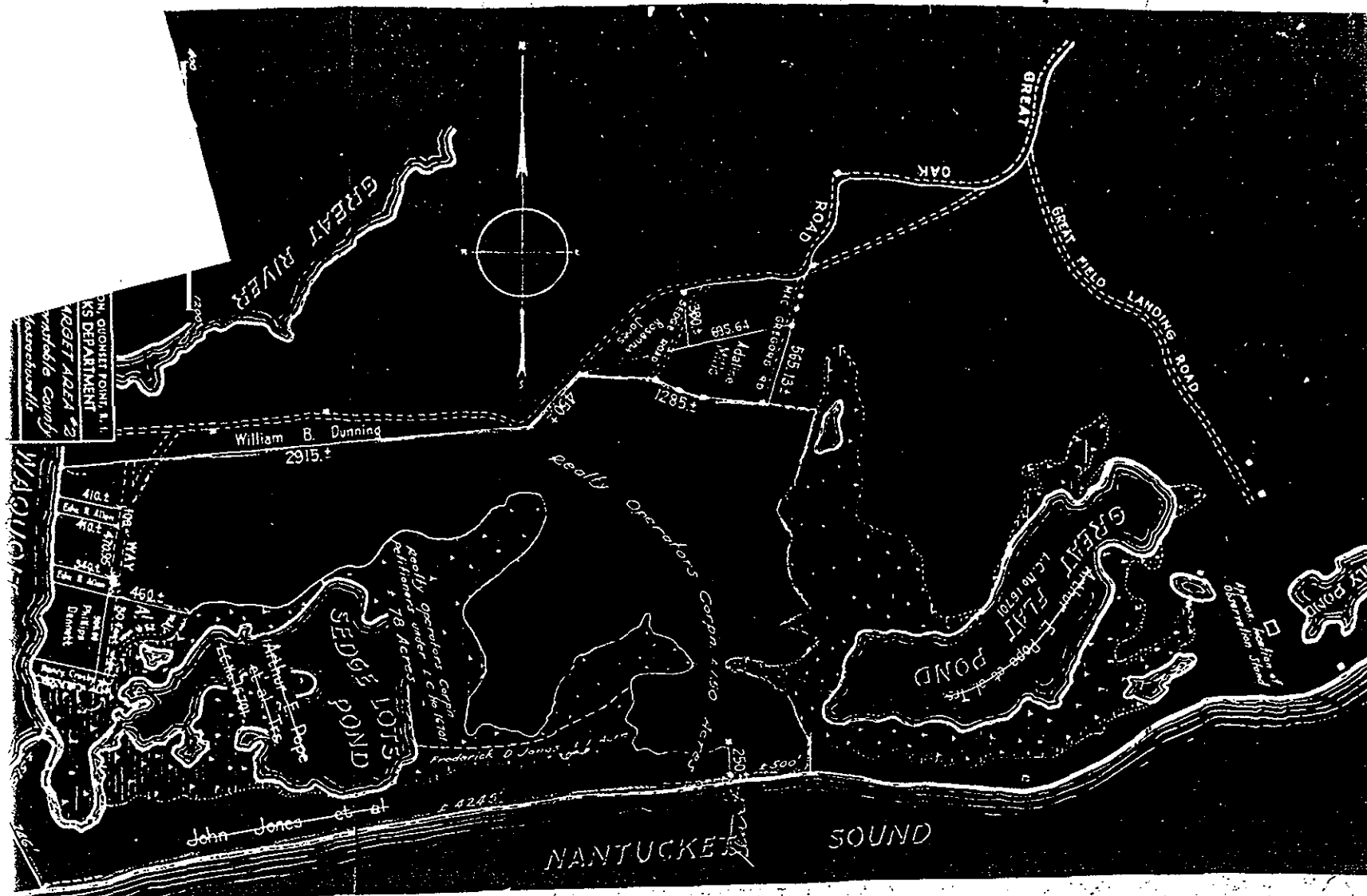
THENCE in a general southerly direction by the various meanders of said meadowland to a point which is due north of a point 500 feet easterly along the high water mark of Nantucket Sound from the point of beginning;

THENCE due south to the high water mark of Nantucket Sound;

THENCE westerly by said high water mark 500 feet, more or less to the POINT OF BEGINNING.

CONTAINING 229 ACRES, MORE OR LESS, of upland, beachland, meadow and pond.

INCLUDING all the lands beneath said lilly ponds and all lands between the mean high water mark and mean low water mark of Waquoit Bay, together with the right to pass and repass over any and all existing rights of way.



07-17

ROSANNA TOBEY OR HEIRS  
CHESTER A. WRIGHT, JR.  
ADA JONAS  
ROSANNA JONAS OR HEIRS  
BENTONTHROP HALL OR HEIRS  
NEW SEA BURY CORPORATION  
FIELDS POINT CORPORATION  
OWNERS UNKNOWN  
TO  
COMMONWEALTH OF MASSACHUSETTS  
DEPT. OF ENVIRONMENTAL MANAGEMENT

ORDER OF TAKING  
SOUTH CAPE BEACH  
MASHPEE

RECORDED: DECEMBER 16, 1982  
BOOK 3630  
PAGE 302

RETURN TO  
Department of Environmental Management  
Land Acquisition and Construction - Room 1304  
100 Cambridge Street  
Boston, Massachusetts 02202

G-6

## ORDER OF TAKING

The Commonwealth of Massachusetts, acting by and through its Commissioner of the Department of Environmental Management, 100 Cambridge Street, Boston, Massachusetts, 02202, by virtue of the authority conferred by Section 3 and 3A of Chapter 132A of the General Laws, as amended, and by Chapter 287 of the Acts and Resolves of 1982, does hereby take in fee for conservation and recreation purposes, under the provisions of and, in accordance with Chapter 79 of the General Laws, as amended, a certain tract of land in the Town of Mashpee, Barnstable County, Massachusetts as shown on a plan entitled, "Plan of Land, South Cape Beach, Mashpee, Mass.", Prepared for the Department of Environmental Management, Scale 1" = 200', February 16, 1976, Briggs Engineering and Testing Co. Inc., Norwell, Mass.", and recorded herewith. Said tract of land is more particularly bounded and described as follows:

Beginning at a concrete bound on the southerly side line of Wills Work Road, which point is 80 feet more or less westerly of the westerly side line of the Great Oak Road layout, at its intersection with said Wills Work Road; thence N 77° 45' 00" E along the southerly side line of said Wills Work Road a distance of 156.60 feet to a point; thence S 86° 24' 00" E along the southerly side line of said Road a distance of 127.65 feet to a point; thence on a curve to the right with a radius of 308.72 feet a distance of 128.29 feet along the southerly side line of said Road to a point; thence S 5° 28' 12" W a distance of 298.87 feet along a certain trail also referred to as the McGregor Road to a concrete bound; thence S 61° 00' 00" E a distance of 220.00 feet along land now or formerly of New Seabury Corporation to a concrete bound; thence on the same bearing a distance of 10 feet more or less along the land of said Corporation to the edge of the upland; thence heading northerly, easterly and southerly along said upland a distance of 380 feet more or less to its intersection with the bearing S 68° 06' 16" E; thence on the same bearing a distance of 10 feet more or less along land of said Corporation to a concrete bound; thence on the same bearing a distance of 970.00 feet along the land of said Corporation to a concrete bound; thence S 50° 30' 00" E a distance of 150.00 feet along land of said Corporation to a concrete bound; thence S 21° 00' 00" E a distance of 260.00 feet along land of said Corporation to a concrete bound; thence on the same bearing a distance of 20 feet more or less along land of said Corporation to the edge of the upland; thence in an easterly direction 220 feet more or less along the edge of the upland by land of said Corporation to a concrete bound; thence S 2° 13' 00" W a distance of 160.00 feet along land of said Corporation to an iron pipe; thence on the same bearing a distance of 10 feet more or less along land of said Corporation to the Great Flat Pond; thence in a southwesterly, southerly, and easterly direction a distance of 3800 feet more or less along Great Flat Pond to the intersection of the bearing N 00° 00' 00" E; thence S 00° 00' 00" W a distance of 10 feet more or less along land of said New Seabury Corpora-

See Plan Book 369, Pg. 20-21

MASH

-2-

tion to a concrete bound; thence on the same bearing a distance of 260.00 feet along land of said Corporation to a concrete bound; thence on the same bearing a distance of 100 feet more or less along land of said Corporation to the mean low water line of Vineyard Sound; thence in a westerly direction a distance of 9110 feet more or less along said mean low water line to a point on the northerly side of the stone breakwater; thence in a northerly, easterly and again northerly and again easterly direction a distance of 8970 feet more or less along Waquoit Bay, so called, and the Great River, so called to the intersection of the bearing S 32° 18' 28" E; thence along the same bearing a distance of 35 feet more or less to a concrete bound; thence S 32° 18' 28" E a distance of 268.54 feet along land of New Seabury Corporation to a concrete bound; thence N 85° 34' 15" E a distance of 557.96 feet along land of said Corporation to a concrete bound; thence on the same bearing a distance of 500.07 feet along land of said Corporation to a concrete bound; thence N 85° 34' 39" E a distance of 500.16 feet along land of said Corporation to a concrete bound; thence N 85° 35' 10" E a distance of 504.85 feet along land of said Corporation to a concrete bound; thence S 46° 13' 50" E a distance of 29.91 feet crossing Wills Work Road to a concrete bound; thence N 43° 46' 10" E a distance of 371.47 feet along the southerly side line of said Road to a point; thence on a curve to the right of a radius of 262.32 feet a distance of 180.67 feet along the southerly side line of said Road to a point; thence N 83° 13' 50" E a distance of 365.71 feet along the southerly side line of said Road to the point of beginning.

Excepted from the land hereby taken are the four (4) parcels of land shown on said plan standing in the name of the Town of Mashpee, as supposed owners, and also excepting from this taking the area shown on said plan as Great Oak Road.

Total area excepted being 33.8 acres more or less.

Total area taken under this instrument is 392.7 acres more or less.

Trees and buildings upon the land are included in this taking.

Excepted from the rights herein taken by the Commonwealth are all easements for wires, pipes, conduits, poles and other appurtenances for the conveyance of water, sewage, gas, oil, electricity and telephone communication now lawfully in or upon the premises hereby taken.

For damages sustained by the aforesaid taking, and in accordance with the provisions of Section 6 of Chapter 79 of the General Laws, as amended, awards are made. The right is reserved to amend the award or to increase the amount of damages to be paid at any time prior to the payment thereof for good cause shown.

-3-

SUPPOSED OWNERS

CORINNA TOBEY OR HEIRS

CHESTER A. WRIGHT JR.

ADA JONAS

ROSANNA JONAS OR HEIRS

E. WINTHROP HALL OR HEIRS

NEW SEABURY CORPORATION

FIELDS POINT CORPORATION

OWNERS UNKNOWN

In accordance with Section 4 of Chapter 79, notations shall be made on the following Certificates of Title of registered land recorded with the Barnstable County Registry of Deeds affected by this taking:

E. Winthrop Hall	17545 (Lots A <sup>1</sup> and A <sup>2</sup> )
New Seabury Corporation	#32984 (Section 26 L.C. Map 11404-71 also 26 L.C. Map 11404-75 & 76)
New Seabury Corporation	#84621 (Lots 1, 2 and 3)
New Seabury Corporation	#90174 (Lots 1 and 2)

The Commissioner reserves the right and power to enter into an equitable agreement with E. Winthrop Hall, his heirs, successors and assigns in regard to the granting of life estates, leases or lesser interests for the continued occupancy of buildings located on a portion of the premises herein taken.

All names of owners herein given, although supposed to be correct, are such only as to matters of opinion and belief.

\* excluding Lot 1060 )

-4-

IN WITNESS WHEREOF, the Commonwealth has caused these presents to be executed in its name and behalf by William F. M. Hicks, its Commissioner of Environmental Management, hereunto duly authorized, who does hereto set his hand and seal this 14th day of December, in the year nineteen hundred and eighty-two.

THE COMMONWEALTH OF MASSACHUSETTS

By: William F. M. Hicks

William F. M. Hicks, Commissioner

Approved as to matters of form:

T. David Raftery A.A.G.  
T. David Raftery  
Assistant Attorney General

Stuart Lesser, Deputy Commissioner  
Division of Capital Planning & Operations

Approved:

Edward J. King  
Edward J. King  
Governor of the Commonwealth

CERTIFICATE OF VOTE

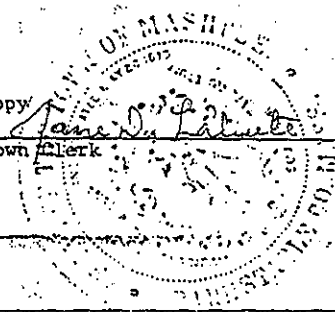
At a meeting of the Board of Selectmen of the Town of Mashpee, Barnstable County, in the Commonwealth of Massachusetts, said meeting being held on July 21, 1982, having been duly called and a quorum being present and voting, upon motion duly made and seconded, it was

**VOTED:** That the Commissioner of Environmental Management be, and is hereby authorized, pursuant to the provisions of Chapter 132A, Sections 3 & 3A of the General Laws, Chapter 1058 of the Acts of 1971, Chapter 283 of the Acts of 1976, Chapter 481 of the Acts of 1976, and Chapter 287 of the Acts of 1982 to acquire by eminent domain all that land as shown on a two sheet plan entitled, "Plan of Land - South Cape Beach - Mashpee, Mass. - prepared for Dept. of Environmental Management - Scale 1" = 200' Feb. 16, 1976 - Briggs Engineering & Testing Co., Inc.", on file with said Department, provided however, that no land owned by the Town of Mashpee shall be taken. The approval and vote hereunder is expressly subject to and conditional upon the full performance and compliance by both the Commonwealth of Massachusetts and the Department of Environmental Management of the terms, promises, covenants and conditions all of which are included and incorporated into a written amended agreement dated June 29, 1981 between the Town of Mashpee and the Commonwealth of Massachusetts acting through the Commissioner of the Department of Environmental Management, a copy of which agreement is attached hereto, incorporated and made part of the Certificate of Vote; the approval and vote hereunder is also expressly conditional upon the written approval by the Attorney General of all the terms and provisions of said agreement dated June 29, 1981. The Board of Selectmen reserves to itself the unconditional right to rescind and cancel the within vote for breach of any of the conditions above stated.

*[Handwritten signatures: D. J. Thomas, [illegible], Christine Garland]*

A True Copy  
Attest:

*[Handwritten signature: Jane D. Lattin]*  
Town Clerk



C E R T I F I C A T E   O F   V O T E

On a motion duly made and seconded, it was

VOTED: That the Board of Environmental Management pursuant to the provisions of Chapter 132 A, Section 3A of the General Laws, approves the exercise of the power of eminent domain by the Department of Environmental Management to acquire the property known as South Cape Beach, Town of Mashpee, Barnstable County, Massachusetts, containing 400 acres ± as shown on a two sheet plan entitled, "Plan of Land - South Cape Beach - Mashpee, Mass. - prepared for Dept. of Environmental Management - February 16, 1976 - Briggs Engineering & Testing Co. Inc." provided that no land owned by the Town of Mashpee shall be taken.

I, Sarah Bell, Secretary of the Board of Environmental Management of the Commonwealth of Massachusetts, do hereby certify that the foregoing is a true copy of a vote adopted by the Board of Environmental Management at a meeting duly called and held on October 19, 1982 quorum being present and voting; and that said vote has not been rescinded or amended.

Attest, a true copy

Sarah H. Bell  
Sarah H. Bell, Secretary

Date October 19, 1982

RECEIVED FOR  
REGISTRATION

DEC 16 9 13 AM 1982

BARNSTABLE COUNTY  
REGISTRY OF DEEDS  
STEPHEN WEEKES  
REGISTER

Barnstable ss

Commonwealth of Massachusetts

CORRINNA TOBEY OR HEIRS  
CHESTER A. WRIGHT, JR.  
ADA JONAS  
ROSANNA JONAS OR HEIRS  
E. WINTHROP HALL OR HEIRS  
NEW SEABURY CORPORATION  
FIELDS POINT MANUFACTURING CORP.  
OWNERS UNKNOWN

TO  
COMMONWEALTH OF MASSACHUSETTS  
DEPT. OF ENVIRONMENTAL MANAGEMENT

ORDER OF TAKING  
SOUTH CAPE BEACH  
MASHPEE

RETURN TO:  
Department of Environmental Management  
Land Acquisition and Construction - Room 1304  
100 Cambridge Street  
Boston, Massachusetts 02202

BARNSTABLE COUNTY  
REGISTRY OF DEEDS  
A TRUE COPY, ATTEST  
*Stephen Weeks*  
STEPHEN WEEKES, REGISTER

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
FORMER GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
OEW PROJECT NUMBER D01MA045001

APPENDIX H

NEWSPAPERS/JOURNALS

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
FORMER GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
OEW PROJECT NUMBER D01MA045001  
APPENDIX H

NEWSPAPERS/JOURNALS

TABLE OF CONTENTS

- H-1 Article from *THE CAPE COD TIMES*, Hyannis, MA  
(reference B-15).
- H-2 Article from *THE CAPE COD TIMES*, Hyannis, MA  
(reference B-16).
- H-3 Article from *THE CAPE COD TIMES*, Hyannis, MA  
(reference B-17).

# Hurricane pounds Cape

AUG 20 1991

## Damage heavy, power still out

FROM STAFF REPORTS

Hurricane Bob rampaged across Cape Cod and the islands yesterday, leaving felled trees, shattered windows and damaged roofs in its wake, and causing at least one death.

The storm sent vacationers and year-rounders alike hurrying into shelters, left thousands of Commonwealth customers without power and kept public works crews busy throughout the night to clear downed trees from major roads.

Cape and islands residents may be without power for several days, according to Richard White, district manager with Commonwealth Electric Co.

Most low-lying areas on the Cape's south side were evacuated yesterday.

Hurricane Bob hit the Cape and islands around 2 p.m. Falmouth, Bourne, and the southside of the Mid-Cape area seemed to bear the brunt.

The winds that caused all this damage were gusting at 48 mph. by 12:40 p.m., but by 3:30 they peaked at 90 mph in Chatham, according to the National Weather Service station in Chatham.

At the Otis Air National Guard Base, winds were measured at 90 mph. by 3:30 p.m. By 4 p.m., winds were dying down, peaking at about 70 mph, and the barometer was beginning to creep up.

Winds turned to the south and southwest, an indication that the storm was pivoting, National Weather Service officials said.

Officials closed the Bourne and Sagamore bridges at 2 p.m. yesterday after wind speeds reached 80 mph. State police cruisers and trucks from the U.S. Army Corps of Engineers blocked the bridges, with instructions to send motorists to evacuation centers at Otis Air National Guard Base or the Upper Cape Regional Vocational Technical School.

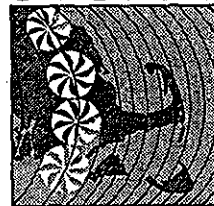
But, said State Police Sgt. Dick White, there were almost no cars on the road.

At least one fatality was reported. A Provincetown man collapsed on Commercial Street near Kendall Lane and was struck by debris blown off the roof of the Surfside Motor Inn.

The man may have had a heart attack before being hit, said Provincetown Fire Chief Michael Trovato. An autopsy will be performed.

The man's name is not being re-

### IN THE PATH OF THE STORM



#### ■ LOOTERS STRIKE:

Gangs hit downtown Hyannis stores. A-2

#### ■ BOATERS SCRAMBLE:

Mariners race to secure boats. A-3

#### ■ BAD TIMING:

Businesses suffer as tourists flee. A-3

#### ■ INSURANCE CLAIMS:

What to do about property damage. A-3

#### ■ SHOPPING FRENZY:

Shoppers jam stores to stock up. A-9

leased. He was described as a white male in his 50s.

Only a handful of other storm-related injuries were reported, most from people injured trying to clean up broken glass, according to area fire departments.

In Provincetown, one person was injured when part of the roof blew off the Sandcastle Resort, on Route 6A near the Truro line, and landed on a nearby cottage around 4:30.

Provincetown firefighters rescued six adults and several people from the cottage. One person, whose name was not released last night, was transported to Cape Cod Hospital.

Please see **STORM** /A-2

# Wreckage on shore testament to power Bob left few boats unturned

By PAUL GAUVIN  
STAFF WRITER AUG 21 1991

The southern coast of Cape Cod looked yesterday morning like Davy Jones's locker come up for air.

Crushed, dismembered, scarred remains of vessels with seafaring names, some appropriate to the scenario — like "Rampage," "Adventure," "Perseverance" — spoke of the strength of Hurricane Bob.

Boat owners, distinguishable from tourists by the look of anguish on their faces, prowled the beaches for the scattered remains of their vessels. A flashlight here. A boot there. A motor jammed into rocks. A shake of the head.

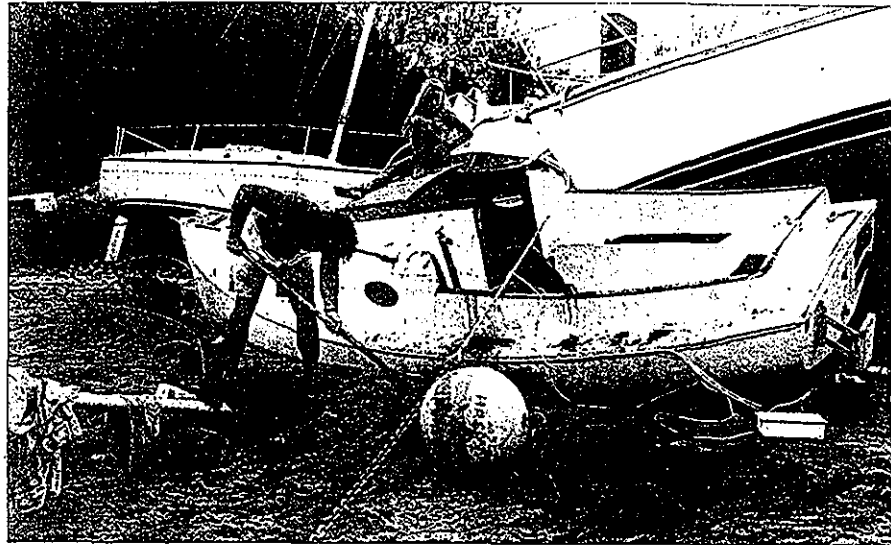
Off Harbor Bluff Road in Hyannis, just north of the Hyannis Yacht Club and the Kennedy Memorial, Nancy Johnson recounted frightening hours on Monday spent looking out her windows at the raging storm.

"It was difficult to see out," she said, "because the wind was whipping up the water into a heavy mist." Then she saw the outlines, boats of various sizes, coming toward the house. "They were coming at a fast pace. There was no time to think. They were all hitting each other on the way in. To be honest, I thought then that this was God's way of telling us something, that He controls our lives. Thank God no one got hurt," she said.

One of the boats was a large one, at least a 40-footer. "When I saw that boat come against the edge of the yard," Ms. Johnson said, "I ran out the front door and drove to my son's house."

Next door, Glen Ream was setting out lawn furniture yesterday and hosing the sea side of the house. The width of his waterfront property is 125 feet, and nearly all of it was taken up by boats that had slammed into a 4-foot-high revetment and stayed. One was up on his lawn.

"I bought this house in '86," Ream said, "and because of Hurricane Gloria, the sale was held up



■ John Rebello of Hyannis attempts to salvage his boat.

Staff Photo by PAUL GAUVIN

six months until a crane could get here to remove one boat that had washed onto the property. It ripped up my lawn pretty well." Now there are about six boats on his property. "I hope the owners can organize an effort to remove these boats... as soon as possible."

Like Ream, another neighbor, Carol Munro, a summer resident, wasn't at home during the storm. "Friends called to describe what had happened," she said. "But when I got here, I couldn't believe it. You really have to see it. Thank God this happened at low tide. It would have been much worse."

Boat owner John Rebello of Hyannis, a Yarmouth firefighter, and his friend Lori Kierstead were holding a wake for his 32-foot wooden-hulled cabin cruiser "Off-shore Hideaway." Of all the boats on that stretch of beach, his took the worst beating.

Rebello showed how a large sailing vessel that had reportedly broken away from a slip at the Hyannis Yacht Club snagged his mooring line on the way to the rocks, dragging his boat and mooring with it, and slamming into shore.

As Rebello spoke, a helicopter bearing Gov. William Weld circled over the wreckage.

"There's my \$2,000 fighting chair," Rebello said while pointing to some mangled metal framing. "I overhauled the engine last year. She was in mint condition."

He pointed out his mooring line, snagged onto the sailboat's rudder, and followed the line to 300 pounds of a double-mooring and

chain on the water's edge.

"If he hadn't snagged my lines, I'd still be out there," Rebello said. "This would have held me. We added the extra mooring and chain on Sunday."

And for Joe Hassett of Centerville, a superior court probation officer, the wreckage on the beach represented a long-time dream shattered. "We feel like we've lost part of our family," he said while surveying damage to his 30-foot Catalina sailboat. "I started sailing 20 years ago on a little daysailer and worked my way up to this. She's a 1991 model. I just got her in May."

Not far away, Chris Kelley of Yarmouthport was helping his friend, Tom Lynch of Centerville, bail out Lynch's 17-foot Cape Cod catboat — with a spade. "We've been shoveling mud out of her all morning," Kelley said. "What are friends for?" Lynch asked from inside the mucked-up cabin.

■ In Chatham's harbors, about 160 boats were damaged in the storm, including many in Stage Harbor, said Peter Ford, harbor master.

"Private docks sustained unbelievable damage," Ford said.

■ In Bourne, people living along Monument Beach estimated nearly 200 boats had either sunk or been swept away. At least a dozen of them ended up in people's yards. Boat owners walked the beach yesterday in search of their vessels. A small shed with a gas pump for boat refueling was destroyed. That, and the damaged boats, left a heavy

smell of gasoline along the shore of Monument Beach.

■ Along the Provincetown waterfront yesterday, owners of more than 40 boats damaged, driven ashore or sunk — mostly pleasure craft — assessed their losses.

"It really hurts, because I know how much time and energy went into the boat," said Scott Brady of Truro, whose tuna boat Honey Pie III was totaled in the storm.

Robert Cabral, owner of Fishermen's Wharf, said his marina was destroyed. "That's \$300,000 right there," he said.

"The electric and water service is another \$50,000 to \$60,000. I wouldn't be surprised if damage reaches a half-million right here."

Cabral said he might decide not to rebuild the line of slips along his pier.

■ At Allen Harbor in Harwich Port, Ren Nichols had a ringside seat as the hurricane swept a group of vessels up out of the harbor and onto land near the Lower County Road bridge.

"The whole dock system gave way at once," said Nichols, president of the neighboring Allen Harbor Marine Service.

Bill Doherty, manager of the Allen Harbor Yacht Club, said eight to 10 vessels were pushed onto land by the storm. All the boats belonged to the club.

The town-operated Saquatucket Harbor was spared any damage, due to a new, docking system, which held boats intact during the storm.

# State damage costs estimated at \$1B

AUG 21 1991

THE ASSOCIATED PRESS

BOSTON — Hurricane Bob did not rate as strong as its most recent predecessor, but it did knock out power to about 2.1 million customers and was blamed in at least 16 deaths, officials said yesterday.

Utility crews from around the Northeast came to Massachusetts, Rhode Island and Connecticut to help free downed lines and restore power. Residents meanwhile cleaned up property and began emptying freezers and refrigerators of spoiled food.

"I didn't think we'd get hit this badly," said George Merrell, owner of Westfield Orchard in Plainfield, Conn., who estimated he lost several thousand bushels of apples, worth about \$8 a bushel.

Officials said Bob did not appear to wreak as much damage as Hurricane Gloria in 1985. But like its sister storm, Bob resulted in thousands of bits of damage that would add up to around \$1 billion in Massachusetts alone, according to an estimate by Gov. William F. Weld.

Bob, with winds peaking at about 105 mph, was the first hurricane to hit the Northeast since Gloria. It crossed into Canada early

yesterday and moved northeastward at about 30 mph with maximum sustained wind near 60 mph and weakening, the National Hurricane Center in Coral Gables, Fla., said.

"It was like (Hurricane) Carol in 1954, the track was similar," said Hal Gerrish, a forecaster with the National Hurricane Center. "Clearly, it was not as strong as Gloria."

Of the 2.1 million businesses and homes without power after the storm, power crews yesterday afternoon still faced 260,000 Rhode Island homes and businesses without electricity; 205,000 in Connecticut; 200,000 on New York's Long Island; 240,000 customers in Massachusetts; 72,000 in Maine; and about 100,000 in New Hampshire.

Meanwhile, about 50 million gallons of raw sewage flowed into Narragansett Bay because Rhode Island sewers couldn't handle the heavy rains.

New England Telephone Co. reported that the storm knocked out service to some Massachusetts customers, mostly on Cape Cod.

## State urges care in search for contractor

HYANNIS — Homeowners whose houses have been damaged by Hurricane Bob should be cautious about selecting contractors to do repairs or about obtaining financing, according to Attorney General Scott Harshbarger.

"Making a few phone calls to compare prices and check out the contractor's reputation could prevent consumers from making a costly mistake," Harshbarger said yesterday.

"Consumers should also aggressively shop for any financing needed to pay for repairs and not fall victim to lenders promising easy money for home improvements," he said.

Harshbarger recommends that consumers:

- Be wary of contractors who soli-

cit business door to door, as well as of contractor-provided financing.

- Check with their insurance agent before proceeding, and see if repair costs are already covered by warranties.

- Obtain at least three competing estimates for the work.

- Get a copy of a written contract for any work to be done, including the type of materials used, the total cost, a payment schedule, and a completion date.

- Remember that they have three business days to cancel any contract signed in their home.

- Check prospective contractors by contacting their references, and by calling the Better Business Bureau and the attorney general's office.

## STOP meeting slated for tonight to be rescheduled

WEST BARNSTABLE — A meeting of STOP — Stop the Outfall Pipe — scheduled for tonight at Cape Cod Community College has been postponed in the wake of Hurricane Bob, according to STOP

official Etta Goodstein.

The meeting, for discussing the campaign to stop construction of an outfall pipe carrying Boston waste water into Massachusetts Bay, will be rescheduled.

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX I

INTERVIEWS

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORT  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER DO1MA045001

APPENDIX I

INTERVIEWS

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- I-1 Interview with Mr. Richard M. Fleming by Inspection Team
- I-2 Interview with Mrs. Rose Mary Burns by Mr. Charles H. Fowler
- I-3 Interview with EOD by Inspection Team
- I-4 Interview with Mr. Howard Weekley, Jr. by Inspection Team
- I-5 Interview with Mr. Larry Webster by Mr. Charles H. Fowler
- I-6 Interview with Ms. Tahirah Edwards by Inspection Team
- I-7 Interview with Police Sergeant Gerald Umina by Inspection Team
- I-8 Interview with Mr. Richardson Jonas by Mr. Charles H. Fowler
- I-9 Interview with Mrs. Jane D. Labute by Inspection Team
- I-10 Interview with Mr. Donald W. Liptack by Inspection Team
- I-11 Interview with Mr. Ken Porter by Inspection Team
- I-12 Interview with Mr. Frank Hicks by Inspection Team
- I-13 Interview with Mrs. Beatrice Williams by Mr. Charles H. Fowler
- I-14 Interview with Mrs. Nancy Hallaren by Inspection Team
- I-15 Interview with Mrs. Audrey Varnerin by Inspection Team

INTERVIEW: I-1

SMCAC-ESL

Time: 1410

Date: 15 Aug. 94

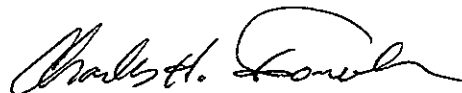
Interviewee: Mr. Richard Fleming

Address: Waquoit Bay National Estuarine Research Reserve, Old  
Swift Estate, Route 28, Mashpee, MA 02649

Phone: (508) 457-0495 work (508) 896-6287 home

SUBJECT: FUDS GNTR OEW at SCBSP, Mashpee, MA 02649

SUMMARY: Mr. Fleming's title is Senior Forest and Park Supervisor. He said to his knowledge nothing of an OEW nature has ever been found on SCBSP. The SI Team considered this significant because he has retired from the Massachusetts ANG EOD after 22 years. For six years, he has been an employee at SCBSP. Mr. Fleming expressed skepticism at the idea that any OEW remains today at SCBSP. Among other things, he said, Hurricane Bob (19 Aug. 91) would have washed something up if it was still there. Fleming said the dunes had gone from 6 feet to 4 feet. Newspaper accounts stated that wind speed during Bob peaked at 105 mph and caused terrible erosion. Finally, Fleming said he had no idea what training had been done on SCBSP; he speculated that it had been used for amphibious assaults from Washborne Island (documents I-13 and H-1).



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-2

SMCAC-ESL

Time: 1050

DATE: 16 Aug. 94


Interviewee: Mrs. Rose Mary Burns

Address: Mashpee Archives, #13 North Great Neck Rd. Mashpee, MA 02649

Phone: (508) 539-1438

SUBJECT: FUDS GNTR OEW at SCBSP, Mashpee, MA 02649

SUMMARY: Mrs. Burns stated that no historic or cultural resources have ever existed on SCBSP. She produced a letter dated 18 Jul. 94, written by the State Archaeologist of the Massachusetts Historical Commission, and she noted that of the historic sites referenced in same none were at SCBSP. The letter concerns attempt to create a National Wildlife Refuge in the Mashpee MA. area (documents F-1).



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-3

SMCAC-ESL

TIME: 1110

DATE: 15 Aug. 94

Interviewees: TSGTs Jeff Swanson and Mike Perra

Address: Bldg. 128, 102 CES/EOD, Otis ANGB, MA 02542-5028

Phone: DSN 557-4861 or (508) 968-4861

SUBJECT: FUDS GNTR OEW at SCBSP, Mashpee, MA 02649

SUMMARY: The SI Team met with TSGT Jeff Swanson and TSGT Mike Perra.

They are both AF EOD and, as such, are recognized as experts at rendering military explosives safe. Hence, they are highly respected for their knowledge of how ammunitions work; they are called on by local authorities, like the police, when military explosives are found; and they are considered by the SI Team the best source of current information about OEW at GNTR.

During the interview, they both agreed SCBSP has only had inert items found at its location. TSGT Swanson was called to SCBSP in 93 to pick up an AN-MK. 23 practice bomb which had been found. It was inert (that is, with out a spotting charge). The only other occasion he could remember being called to SCBSP was the same year for a WW II era practice hand grenade. It too was inert; it was a solid piece of metal which could not have had a fuze. When Otis AF EOD has been called to assist with suspected ammunition and they have found that the item in question is inert, they have not kept records. Plate number 2 shows where TSGT indicated the practice bomb was found.

TSGT Perra has been at Otis AFB for seven years. He remembered no serious or live incidents at SCBSP.

Both TSGTs recalled many instances when they have been presenting ordnance display to the public and they have been told by people visiting these displays that they have or they have seen others who have AN-Mk. 23 practice bombs in their home. Apparently, many of these practice bombs have been scavenged by the public over time, much like arrowheads and other historic artifacts.

The SI Team found no records prior to TSGT Perra's assignment to Otis AFB that would indicate any problem has ever existed at FUDS GNTR.

A handwritten signature in cursive script, reading "Charles H. Fowler". The signature is written in dark ink and is positioned above the printed name and title.

Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-4

SMCAC-ESL

Time: 1015

DATE: 13 Aug. 94

Interviewee: Mr. Howard Weekley, Jr.

Address: P.O. Box 1571, North Kingstown, RI 02852

Phone: (401) 294-9540

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: The SI Team met with Mr. Weekley, Jr. to discuss Quonset Point Naval Air Station and how it was used in relation to GNTR. Mr Weekley is an amateur historian who has been instrumental in organizing information for Quonset Air Museum in North Kingstown, RI. Neither he nor anyone of the other volunteers at the museum was aware that planes had flown practice missions to GNTR or as it was also known Mashpee Practice Bomb Range. Weekley said the following planes were flown from Quonset Point: Hell Cats, Wild Cats, Avengers, Corsairs, PBYS, Catalinas, and PB4Y Privateers.

Mr. Weekley stated that the Archives for Quonset Naval Air Station were moved to Brown University at Providence, RI and the National Museum of Naval Aviation at Pensacola, FL after the base was closed. A previous Historic Records Search (HRS) by Mr. Ed McManus of this office found no useful information relating to FUDS GNTR. HRS with the National Museum of Aviation produced no information (documents M-1 and M-2).

Mr. Weekley recommended we talk with his assistant Mr. Larry Webster for any information we might desire on the subject of ordnance.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-5

SMCAC-ESL

Time: 1700

DATE: 14 Aug. 94

Interviewee: Mr. Larry Webster

Address: P.O. Box 1571, North Kingstown, RI 02852

Phone: (401) 294-9540

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA

SUMMARY: Mr. Webster had no knowledge of practice bombing at GNTR or Practice Bomb Range Mashpee, MA. He said targets in the area during WW II had typically been in the bays, and he added that the bombs were usually sand or water filled. In addition, he added that Mk 4 Practice Bombs were used the most often. He also said sand and water-filled bombs were often used in the area. Webster was not able to provide any additional information.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-6


SMCAC-ESL

Time: 1335 on 13 Aug. and 0900 on 16 Aug. 94  
Interviewee: Ms. Tahirah Edwards  
Address: SCBSP  
Phone: (508) 457-0495

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Ms. Edwards was on duty as the parking lot attendant both times the SI Team visited SCBSP. She was unaware that it had once been a practice bomb range. She was also unaware of anyone having ever found OEW at SCBSP. She said she had only been working at SCBSP for a couple of years, and that her boss Mr. Richard Fleming would know better than she would what may have been found at the park (document I-1).

The public, she said, has access any time to the park, and it is common for young people to gather there in the evening to socialize. There was no gate.

  
Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

**INTERVIEW: I-7**

SMCAC-ESL

Time: 1545

DATE: 13 Aug. 94

Interviewee: Police Sergeant Gerald Umina

Address: Police Department Mashpee, 99 Nathan Ellis Hwy,  
Mashpee, MA 02649

Phone: (508) 539- 1480

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Sergeant Umina said bullets and grenades have been found on SCBSP, but never bombs to his knowledge. He said people bring these items to the police station whenever they find them. It should be noted, however, that Mrs. Jane Labute pointed out that local people often refer to the whole area as South Cape beach, and so it could easily be that the items Sergeant Umina and the Mashpee Police Department have received did not come from SCBSP (document I-9).

When ammunition is brought to the Police Station, they notify AF EOD at Otis AFB. Interview I-3 with EOD did not support the statements made by Sergeant Umina.

Mr. Richardson Jonas was recommended to the SI Team as someone who would likely have first-hand knowledge of historic DOD activity at SCBSP. Sergeant Umina said Mr. Jonas, who is 67 years old, had lived in the area his whole life, and was the son of the original owner of the land that became GNTR. In fact, his parents had owned one acre of the land taken for GNTR (documents G-1 through G-5).



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

**INTERVIEW: I-8**

SMCAC-ESL

Time: 1715 on 15 Aug. 0830 on 17 Aug. 94  
Interviewee: Mr. Richardson Jonas  
Address: P.O. Box 254 Mashpee, MA 02649  
Phone: (508) 420-2078

**SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649**

**SUMMARY:** Mashpee, MA Police Sergeant Gerald Umina told the SI Team that Mr. Jonas was familiar with what had happened at GNTR when it was under DOD control. The SI Team contacted Mr. Jonas, and he said his family had owned some of the land that was used by the U.S. Navy for bomb practice. In addition, he stated the following: a) The target area was more than a one mile area. b) He did not know the exact location of where the target had been. c) GNTR was not an amphibious assault training area. That training had been at Washburn Island. d) He could think of no one old enough to provide more information. His father, he said, could have provided more useful information, but he has died. e) Even when he was fishing near GNTR as a boy with his father, (he would have been about 18), he was unable to see what was going on at the site or to see any of the approaching planes. f) He thought the area had been "roped off" to keep the public out.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

**INTERVIEW: I-9**

SMCAC-ESL

Time: 1000 on 15 Aug. and 1100 on 16 Aug. 94

Interviewee: Mrs. Jane D. Labute

Address: Town Clerk's Office, 16 Great Neck Road, Mashpee, MA 02649

Phone: (508) 539-1416

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Mrs. Labute is the town clerk for Mashpee, MA. She and her husband Mr. Gerry Labute are life-long Mashpee residents. Mr. Labute served in the Navy during WW II. He was a gunner on a landing ship tank. As such, he was trained to identify aircraft so as to distinguish properly between friendly and enemy aircraft. Mrs. Labute said her husband has always "loved planes."

As a result of wounds he received fighting in the war, Mr. Labute returned to Mashpee, MA before the war ended.

The most valuable information Mrs. Labute conveyed for her husband was as follows: a) Corsairs were the only planes Mr. Labute ever saw flying practice missions at FUDS GNTR. He could see them from the tops of houses he was building near the FUDS. b) The target was sheets suspended between poles. Sedge Lot Pond was the basic target area. Mrs. Labute pointed out on the map where the target had been (plate 2). c) Local residents, she warned, often refer to this whole area of Cape Cod as south Cape and south Cape beach, and it is therefore easy to become confused as to whether people are referring to SCBSP or the entire nearby area. d) Amphibious assault training was done on Washburn Island and not on FUDS GNTR. e) No roads or buildings were present during the time FUDS GNTR was in operation. A building foundation the SI Team noticed during the site visit was, according to Mrs. Labute, a bath house that had been built after DOD use ended, and it was destroyed by a hurricane many years ago. g) She had never heard of any OEW being found at GNTR, and said anything like the grenades Mashpee Police Sergeant Gerald Umina mentioned to the SI Team had probably washed in with the tide from Washburn Island (document I-7).

Mrs. Labute considered her husband one of the few remaining people alive with any first-hand knowledge of GNTR (document F-4).

A handwritten signature in black ink, appearing to read "Charles H. Fowler". The signature is fluid and cursive, with a large loop at the end.

Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-10

SMCAC-ESL

Time: 0815

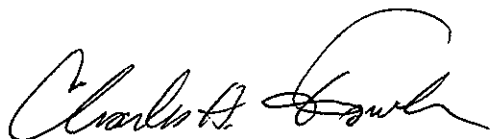
DATE: 15 Aug. 94

Interviewee: Mr. Donald W. Liptack

Address: P.O. Box 709, Flint Rock Pond, Barnstable, MA 02630

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Mr. Liptack, the District Conservationist, is an employee of the U.S. Department of Agriculture Soil Conservation Service. Mr. Liptack provided aerial photos and the book Soil Survey of Barnstable County, Massachusetts (documents J-1 and B-2). He agreed to review the photos he had provided, and agreed, too, that a building had been present, a conclusion the SI Team had reached during its first visit to GNTR on 13 Aug. 94. The SI Team suspected then that the building might have been present during the operation of FUDS GNTR. However, it was later learned that this was not the case (document I-9).



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-11

SMCAC-ESL

Time: 0930

DATE: 16 Aug. 94

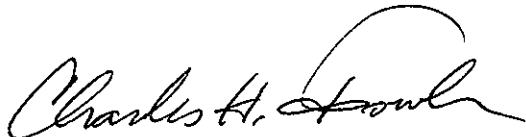
Interviewee: Mr. Ken Porter

Address: Tax Assessor's Office, 16 Great Neck Road North,  
Mashpee, MA 02649

Phone: (508) 539-1416

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Mr. Porter has lived in the Mashpee, MA area since 1933. He served in the military in WW II, and he stated he was unaware of any activity at FUDS GNTR when he had returned from the war. It was his opinion that GNTR was used for amphibious landing training. He doubted that any bombs of any type were dropped at the site.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-12

SMCAC-ESL

TIME: 1050

DATE: 16 AUG. 94

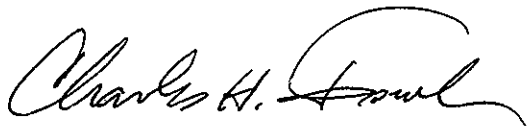
Interviewee: Mr. Frank Hicks

Address: 379 Main St., Mashpee, MA 02649

Phone: (508) 477-9565

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Mr. Hicks was at the Mashpee Archives being interviewed for an oral history when the SI Team visited the archives. He was born in Mashpee, MA and has lived only there, except for his time spent in the military during WW II. He said FUDS GNTR was never used for military purposes. He said the only training was done at nearby Wasburn Island. Mr. Hicks was emphatic about this, but the SI Team concluded that he was mistaken. It is noteworthy that he did not know about FUDS GNTR as it adds to the overall impression that its usage was brief and possibly over by the time Mr. Hicks had returned home from the war.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

**INTERVIEW: I-13**

SMCAC-ESL

Time: 0845

DATE: 18 Aug. 94

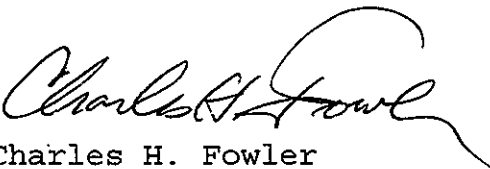
Interviewee: Mrs. Beatrice Williams

Address: 1148 Main St. Catuit, MA 02635

Phone: (508) 428-8141

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: The SI Team contacted Mrs. Williams of the Historic Society of Santuit and Cotuit. She stated she had never heard of FUDS GNTR or any military activity on what is today SCBSP. Later, she called and said she had talked with Mr. Phillip Brackett, who is 80 years old. She said he had told her Camp Can Do It at Catuit, MA had no military involvement with GNTR. It was, however, according to him, a rest and relaxation area for soldiers at Camp Can Do It. This may have been true. The Navy did not condemn the land until Jan. 1945 (Ref G-1).

  
Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-14

SMCAC-ESL

Time: 1000 17 Aug. and 1010 on 18 Aug.

Interviewee: Mrs. Nancy Hallaren

Address: THE CAPE COD TIMES, 319 Main St., Hyannis, MA 02649

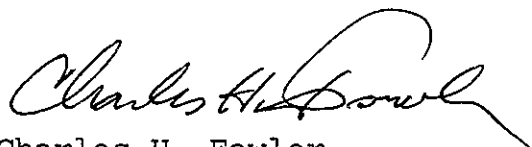
Phone: (508) 775-1200

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: Mrs. Hallaren, the librarian for *THE CAPE CODE TIMES*, assisted the SI Team during its search of articles at the newspaper. No articles were found here or anywhere else about FUDS GNTR, nor were there any stories concerning OEW at GNTR or SCBSP.

There were, however, many, perhaps as many as 50, stories written when the state of MA was taking over this land to create SCBSP. The date the state took the land was 1 July 1982. No mention was made in these articles of the fact that this had been a FUDS. It was generally described as "untouched coastline, dunes and upland." And again, there was no remark made of OEW.

During the 17 Aug. visit, there was an article describing Hurricane Bob discovered. Mrs. Hallaren described it as having caused terrible erosion, and as noted in interview I-1 Mr. Fleming believed the hurricane's effects would have unearthed any remaining OEW at SCBSP if there had been any (documents I-1 and H-1). Mr. Fleming said the hurricane's winds blew two feet of sand from the dunes.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

INTERVIEW: I-15

SMCAC-ESL

Time: 0945

DATE: 16 Aug 94

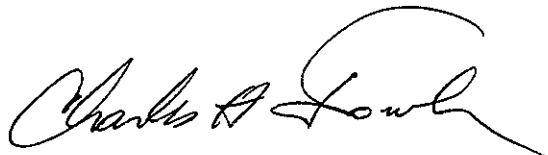
Interviewee: Mrs. Audrey Varnerin

Address: 24 Addam Circle, Carver, MA 02330

Phone: (508) 866-6912

SUBJECT: FUDS GNTR OEW at SCBSP Mashpee, MA 02649

SUMMARY: The SI Team observed Mrs. Varnerin as she arrived at SCBSP. She was carrying a commercial metal detector. In the "six to eight years" in which she said she had been coming to SCBSP to search the area with her metal detector, she said she had never found OEW. She has found .22 cal cartridge cases but nothing else. These were no doubt left by the public because they were far too new looking to have been something left by WW II Army Air Corp. Nor would they have fit any training scenario for a PBR.



Charles H. Fowler  
Quality Assurance Specialist  
Ammunition Surveillance

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX J

PRESENT SITE PHOTOGRAPHS

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX J

PRESENT SITE PHOTOGRAPHS

TABLE OF CONTENTS

- J-1 Above dune looking toward target area.
- J-2 Looking eastward down beach.
- J-3 Looking westward down beach.
- J-4 Across Sage Lot Pond.
- J-5 Entry to beach from parking lot along walkway.
- J-6 Area behind parking lot indicative of swampy area at site.



J-1 Above dune looking toward target area.



J-2 Looking eastward down beach.



J-3 Looking westward down beach.



J-4 Across Sage Lot Pond.



J-5 Entry to beach from parking lot  
along walkway.



J-6 Area behind parking lot indicative of  
swampy area at site.

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX K

HISTORICAL PHOTOGRAPHS  
(NOT USED)

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX L  
REFERENCE MAPS/DRAWINGS  
(NOT USED)

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX M

ARCHIVES SEARCH REPORT CORRESPONDENCE  
(NOT USED)

ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORTS  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA045001

APPENDIX N

REPORT DISTRIBUTION LIST

# APPENDIX N

## REPORT DISTRIBUTION LIST

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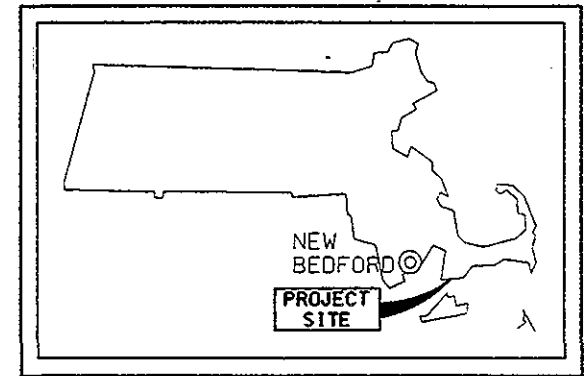
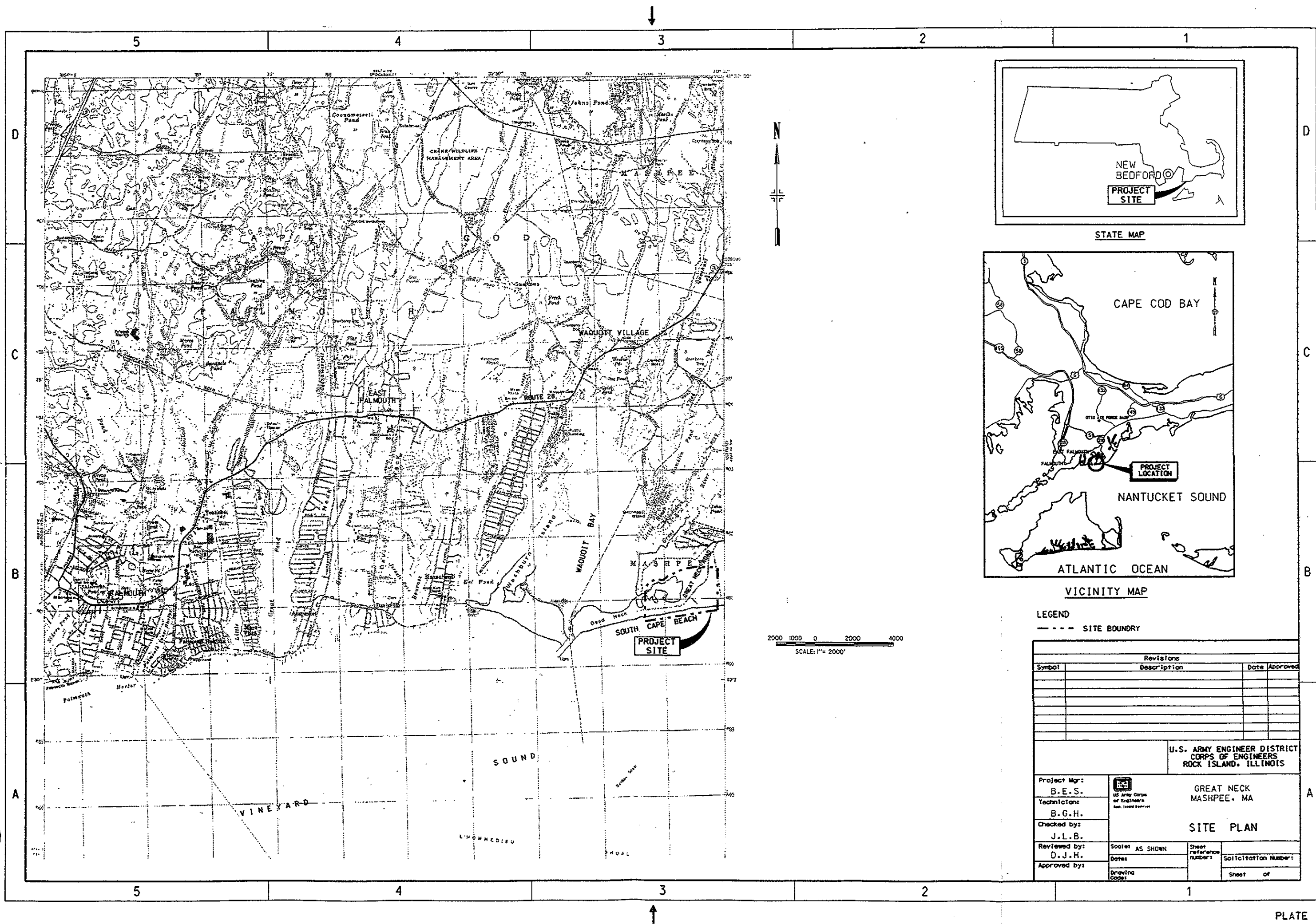
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ED-D	-	-	1
ED-DN	3	-	-
ED-G	-	-	1
ED-H	-	-	1
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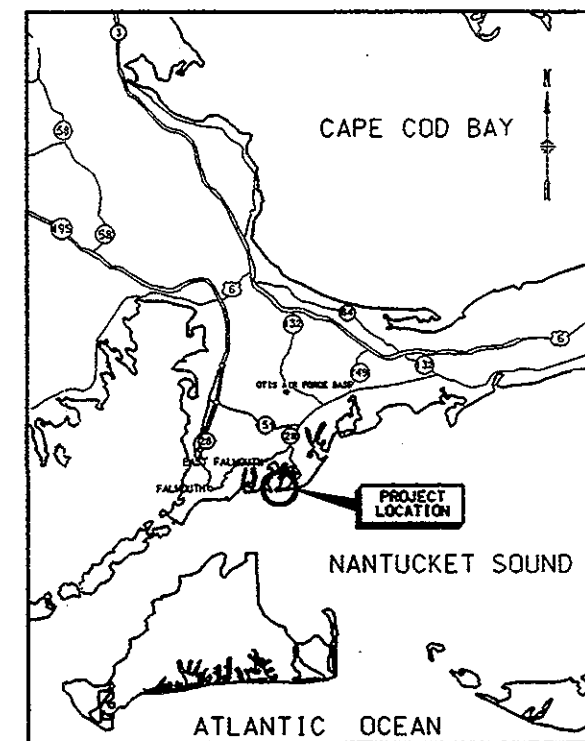
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ORDNANCE AND EXPLOSIVES WASTE  
ARCHIVES SEARCH REPORT  
FOR  
GREAT NECK TARGET RANGE  
MASHPEE, MASSACHUSETTS  
PROJECT NUMBER D01MA45001

REPORT PLATES



STATE MAP

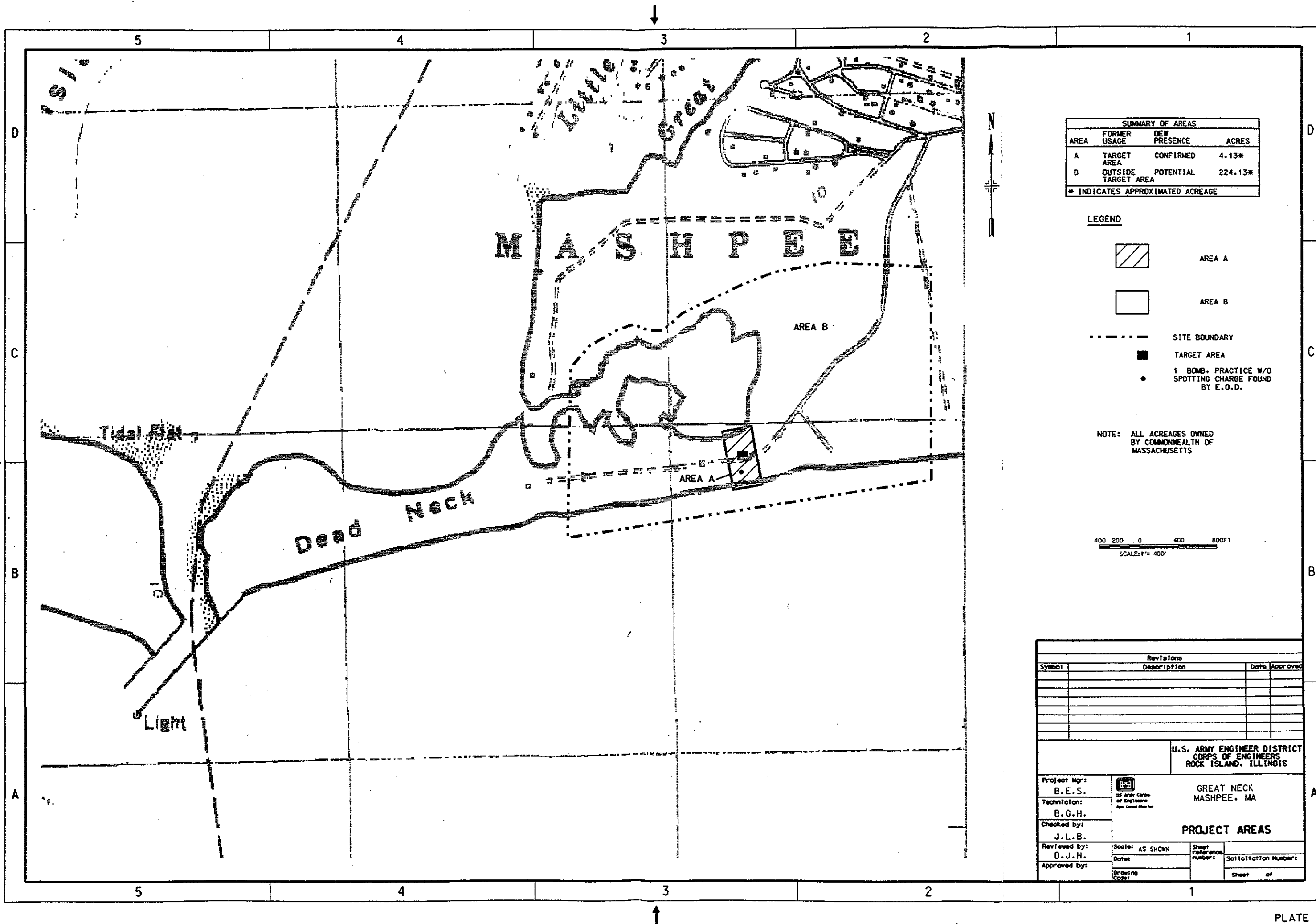


VICINITY MAP

LEGEND  
--- SITE BOUNDARY

Revisions			
Symbol	Description	Date	Approved

Project Mgr: B.E.S.		U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS	
Technician: B.G.H.		GREAT NECK MASHPEE, MA	
Checked by: J.L.B.		SITE PLAN	
Reviewed by: D.J.H.		Scale: AS SHOWN	Sheet reference number:
Approved by:		Drawing Code:	Solicitation Number:
			Sheet of



Revisions			
Symbol	Description	Date	Approved

Project Mgr: B.E.S. Technician: B.G.H. Checked by: J.L.B. Reviewed by: D.J.H. Approved by:		U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS  GREAT NECK MASHPEE, MA  <b>PROJECT AREAS</b>  Soles: AS SHOWN Date:      Sheet Reference Number:      Saltation Number:
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